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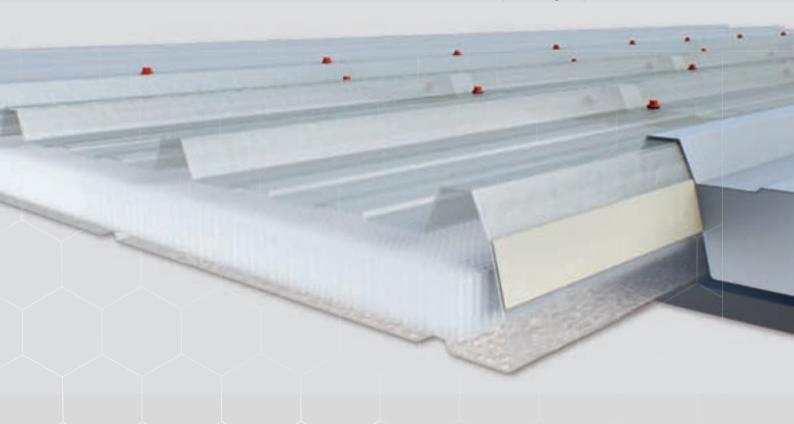


# RETHINKING THE ROOFLIGHT

Responding to customer feedback and the increasing demands of today's metal roofing and cladding envelope professionals, the design team at Hambleside Danelaw are pleased to unveil a package of improvements to the company's composite panel rooflight following the launch of their new Zenon range.

These improvements address key installation issues and can deliver a range of benefits to the metal building envelope, including:

- Increased light transmission
- Improved light distribution
- Lower U-values
- Reduced cold bridging
- Compression resistant fillers
- Enhanced spanning capabilities









incorporating Building Projects Magazine

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The Jurassic Coast is getting its first dedicated fossil museum thanks to National Lottery Funding and one collector's generosity. By Steve Menary

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GLOBAL ARCHITECTURE AWARD

# RIBA launches new global architecture award: The RIBA International Prize

The Royal Institute of British Architects (RIBA) has announced a new global architecture award for the world's best new building.

The RIBA International Prize will be awarded to a building which exemplifies design excellence, architectural ambition and also delivers meaningful social impact.

RIBA President Jane Duncan said: "We are thrilled to launch this new award to recognise and celebrate architectural excellence across the world.

"It is our intention that the RIBA International Prize will uncover the world's most innovative and visionary architecture and spark local and global debates about the positive impact that well-designed buildings and places can have on their communities and environment."

RIBA's judging process will see two expert panels of jurors visit each of the shortlisted buildings twice in person before the Grand Jury led by acclaimed architect Richard Rogers selects six finalists from which to choose the winner.

Other Grad Jury members include Kunlé Adeyemi of NLÉ Projects, Marilyn Jordan Taylor FAIA and Philip Gumuchdjian of Gumuchdjian Architects.

Adeyemi commented: "This is the first time RIBA have opened their awards to any architect from any country and I look forward to exploring how architects worldwide are responding to the unique challenges and opportunities of their local geographies with resourceful and innovative solutions."

An additional prize, the RIBA International Emerging Architect Prize, will be awarded to a building designed by a practice whose oldest founding director is under the age of 40 at the time of the building's completion.

The winner of the first RIBA International Prize will be announced at a ceremony in London in December.



I – Richard Rogers, founding director of Rogers Stirk Harbour + Partners 2 – Kunlé Adeyemi, director, NLÉ Projects 3 – Philip Gumuchdjian, director of Gumuchdjian Architects 4 – Marilyn Jordan Taylor FAIA, the dean of architecture at the University of Pennsylvania's School of Fine Arts

The RIBA Grand Jury:

# Architecture of the year 2016 finalists announced

Almost 250 entries were received for this year's Architect of the Year Awards and the judges have now made the difficult decision and drawn up a shortlist for each of the 13 categories.

Judge Thomas Lane commented: "This year we have had a record number of entries for the AYA's. Entries have come from a diverse cross section of architectural practices ranging from tiny practices up to the big commercial firms.

"The quality of the entries are

outstanding so for the first time in the history of the AYA's we have extended many categories to eight strong shortlists to reflect this. Getting onto an AYA shortlist is a real achievement and congratulations to all the firms who have made it this far."

All the finalists work will be displayed in an immersive experience within the DISCOVER feature area at Ecobuild, sponsored by Medite-SmartPly, which takes place at ExCeL from March 8-10.

In its 13th year, the awards will be

hosted by writer and broadcaster Stephen Fry, and held at ExCeL, London on March 9.

The Scheuco Gold award is presented annually to the practice that has made the most significant contribution to British architecture over the past year. It is the award for the best of the best.

For a full list of the finalists and more information, please visit: www.architectsdatafile.co.uk and enter reference number 16426.

# Living with the street and neighbourhood: PARKOPERA



PARKOPERA, designed by Alper Derinboğaz, founder of Alper Derinboğaz, Salon, is a cultural facility in Antalya that coexists with a neighbourhood park between apartment blocks giving opportunities and providing equipment to amateur and professional groups.

The building is a centre of attraction, especially for the west part of Antalya, which is full of residential buildings and hotels, and it is offering a two-way cultural program while providing a venue and equipment for performances. This cultural program includes a show centre, a studio, and an opera stage as well as a multi-purpose lounge facing the park where the neighbourhood finds its living space. The opera hall can meet the requirements for an opera with a 400 person audience, three sided stages, an orchestra pit, a sofito, a service lounge, and stage elevators.

PARKOPERA hosts shows, concerts, and similar activities at certain hours of the day, and with its lounge, which is integrated with the park life throughout the day, the target is to host cultural events organised by those outside the institution and to make those events accessible to everyone on the neighbourhood scale. The hall has a busy schedule with its show centre, studio and rehearsal rooms as an opera hall, and the lounge looking at the park, opens to the park life in harmony with the daily rhythm of life on the neighbourhood scale.

On the upper level of the foyer, the platform is used

as an audience platform for different types of shows. The lodges attached to the platform, on the other hand have been designed as a mezzanine floor to serve either as a cafe, bookstore, bistro or for similar functions. PARKOPERA, which is located in Antalya Muratpaşa on a parcel which is open all around and next to a neighbourhood park, is first of all trying to minimise the mass required by program. The building has links with the apartment blocks all around it, and it produces a fragmented volumetric order that can also be observed from top. Two separate scales of the hall and the auxiliary spaces considering spatial, structural and functional properties of them are merged into unique language of the building.

Required spaces are organised in a way that allows the multi-purpose foyer to open up to the trees, the children and the voice of the street in the direction of park while locating the opera hall, the entrance for the artists, the rehearsal rooms, the studios and workshops in the southern part of the building. Therefore the building is shaped to fed from the daily life of the neighborhood.

Architectural Design Office: Alper Derinboğaz, Salon

Project Location: Antalya / Turkey Project Type: Cultural Facility Project Area: 8.038 sq m Project Date: Project Phase

## events

### CONFERENCES

Smart Cities and Communities conference: Manchester 15 March, Manchester www.ciat.org.uk/en/media\_centre/ news\_and\_events/events

Zero Carbon Design Conference 08 – 09 September, Birmingham www.zerocarbonbuildings.world

### **EXHIBITIONS**

Zaha Hadid Architects Exhibition Now – 29 February, Birmingham www.architecture.com/WhatsOn

### **SEMINARS**

Working Internationally Seminar 07 March, London www.architecture.com/WhatsOn

### TRADE SHOWS

### kbb

06 – 09 March, Birmingham www.kbb.co.uk

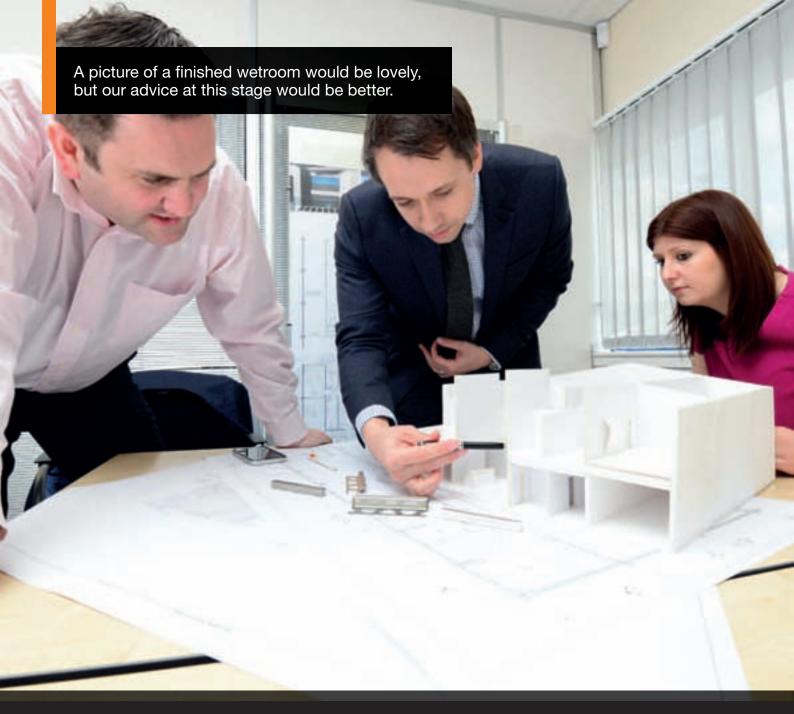
### Ecobuild

08 – 10 March, London www.ecobuild.co.uk

### **WORKSHOPS**

Floodand Coast 2016 23 – 25 February, Telford www.floodandcoast.com

Architectural Fictions
05 March, London
www.architecture.com/WhatsOn



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# The future of London's roads and streets unveiled in new NLA exhibition

An exhibition will explore the past, present and future of London's streetscapes through a series of images and videos.

"Streets Ahead: The future of London's roads", presented by New London Architecture (NLA) with Transport for London (TfL), will offer an in-depth exploration of a range of proposals aimed at radically reshaping the city.

Models, renders and videos will offer a glimpse into future London.

NLA Chairman Peter Murray said: "Streets define the character and quality of a city and are key to the health and wellbeing of its citizens. We must keep this in the forefront of our



minds as we face a period of major change in the way we use our roads."

Through extensive set of talks, site visits and seminars, the exhibition will cover the role that roads and streets play in people's lives, the economic growth of the city, the effect on Central, Inner and Outer London, concerns about the environment and our health; as well as technological innovations.

Longer-term plans will envisage dramatic potential changes to city infrastructure and lifestyle with tunnels dissecting through London; driverless cars winding through the streets of the capital; drones replacing delivery services; and highways converted into parks and public spaces.

Richard de Cani, Managing Director of Planning at Transport for London, said: "This exhibition will help to spark debate and generate ideas for new and improved ways we can travel, by vehicle, bicycle and on foot, as well as highlight the progress we've made to use technology and other innovative tools to best utilise our roads and streets."

The exhibition is running until 24 February in the NLA Galleries at The Building Centre. Visitors will be able to pose questions directly to TfL and vote on key topics and debates.

'Streets define the character and quality of a city and are key to the health and wellbeing of its citizens'

NLA Chairman Peter Murray

# Heathrow expansion could create green spaces bigger than Hyde Park

Communities around Heathrow could benefit from a £105 million investment in green spaces and community buildings if the airport is allowed to expand.

New images released recently highlight the transformations within the southern part of the Colne Valley Regional Park along with new green areas to the east, north and south of the airport.

The potential redevelopment, which could create green spaces four times the size of Hyde Park, would include new wet meadows for flood protection, pastures for grazing animals, bridleways, a cross country course, natural ponds, sports facilities, formal gardens, allotments and even a mountain bike trail for the public to enjoy.

Heathrow Director of Sustainability, Matt Gorman said: "The expansion is an opportunity to provide once in a generation improvements to the physical environment for the communities around the airport.

"Our new plan means this airport can be world-leading in environmental performance and guarantee that those most impacted by expansion get both the greatest benefits and fair treatment."



Heathrow is collaborating with the Colne Valley Regional Park Community Interest Company (CIC) on developing this vision if the airport is chosen to expand.

The airport would work with the Friends of the River Crane to improve the quality of the habitat for watercourses to the east of the airport and increase their public amenity value.

To the north, there is an opportunity to create wetland areas with public boardwalk access and an improved cycle network connecting with local boroughs. Sports facilities are planned in the south.

The redevelopment plans would be subject to public consultation as part of a rigorous planning process.



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BUILDING MADE BETTER.



# Architecture meets nature north of the Arctic Circle



The Norwegian composer and musician, Håvard Lund has embarked upon an innovative project to create an artist's retreat on Northern Norway's beautiful and dramatic coastline. The retreat is named Fordypningsrommet, the Norwegian word for 'room for deeper studies', as Lund aims at inspiring artists to return to nature and deepen their creative pursuits.

The project consists of six small mono-functional houses with a uniquely playful design and clad in Kebony. The houses include a sauna, sleeping house, kitchen house, studio, the so called "tower for big thoughts", and a bath-house. These dwellings are built on top of angled steel feet and anchored with bolts and concrete to create visually striking angles. Situated in the Arctic Circle, in Fleinvær Archipelago, the buildings have been carefully designed to give stunning views of the distinctive mountains and peaks of the adjacent islands of Lofoten. In summer 2016 the Fordypningsrommet will open to the public.

The serene environment serves as a blank canvas for the creative minds of those who will stay there, providing a quiet retreat from the hustle and bustle of busy urban life. The remote location of Fleinvær means that there are no cars or shops, by stripping away many of the distractions of modern life it is hoped that artists can focus their minds and fully immerse themselves in their projects. The surrounding nature offers unusual high skies and long sights and horizons, which

will help artists to work in a focused and effective way. Besides studies the place will offer concerts, talks, and previews of acts for audiences.

TYIN tegnestue, the award-winning architects, together with their mentor Prof. Sami Rintala, designed this project and chose Kebony wood for much of the construction. This was a choice borne out of the material's versatility and practical applications as well as its beauty. The wood's appearance and the dappled silver-grey patina that the wood attains over time ensure the structures blend into their stunning surroundings. The ease with which Kebony can be worked with was a key consideration, as the buildings are finished with an intricate lattice of wood tiles, evocative of fish scales, further interweaving the natural and the man-made.

Developed in Norway, the Kebony technology is an environmentally friendly process which enhances the properties of sustainable softwood with a bio-based liquid derived from agricultural crop waste. By 'pickling' the wood with this liquid under pressure, the wood is permanently modified, resulting in greatly improved durability, giving Kebony the characteristics of premium hardwood. The robust nature of Kebony is incredibly important, especially in the Fordypningsrommet project, as the buildings are set out on the coastline, exposed to harsh weather and extreme cold climate.

Håvard Lund, the creator of the Fordypningrommet project commented "We really wanted to make the build an environmentally friendly construction, disrupting the environment as little as possible while maintaining a natural aesthetic. Kebony provides us with a great option of a beautiful building material which minimises the environmental impact of construction."

Mette Valen, Team Leader Norway at Kebony said of the project "It's fantastic to be involved in a build like this, one that really focuses on interesting design choices to create a calming and beautiful atmosphere. Håvard Lund has a wonderful vision and we at Kebony are proud to help him realise it."

# Unite Students secures prime site in Coventry

Unite Students has acquired a development site, subject to planning, in the centre of Coventry.

The development is expected to provide a home for approximately 370 students and will be located in close proximity to the Coventry University campus.

Richard Simpson, managing director of Property for Unite Students, commented: "We are delighted to have acquired a further site in Coventry for delivery in 2017.

Coventry University has continued to perform strongly, driving high levels of demand for good quality, well located purpose built student accommodation."

The total development cost of the site is expected to be approximately £24 million.

The project is scheduled to open in time for the 2017/18 academic year.

# Ubbink Airtight Rigid Ductwork





# practice profile

# e profile d Bond Bryan

# The ethos behind Bond Bryan

If there's one thing that sets architects apart it's their vision. It puts a stamp on their work. It's at the heart of what they do.

"Principally, we create places for people – and, with it, we bring the impact of our architecture on their lives and their enjoyment of life in that environment," Greham Raynham, of award-winning Bond Bryan Architects, explains with great enthusiasm.

"And, equally importantly," he goes on to tell me, "it gives our clients a sense of well-being and feeling comfortable."

What other factors does he feel are important? "Another strand to Bond Bryan is being good at what we do – of delivering quality, in terms of service and the information we provide. We spend a lot of time ensuring that we get this right and that things are correct."

"We have a skilled team and its depth of experience and knowledge is spread across the business. The quality of the software we use is also vital."

Reinforcing these throughts is what amounts to the practice's mission statement: "Truly successful buildings," says Bond Bryan, "are created from a dynamic synergy between client and architect.

"It is the desire to achieve this, which makes our projects a success, and a reflection of the way we think, work and design communities."

All this, I suggest to Greham, presents a very strong work ethic on the part of the company which boasts 120 staff in centres around the UK, putting it among the UK's top 50 practices.

We are meeting in the practice's smart-yet-compact London studio based in Gray's Inn Road and usefully adjacent to the creative hubs of the Bloomsbury and Clerkenwell districts.

Greham joined Bond Bryan in 2008 working in its Kent studio before switching three years later to the Middle East developing markets there. He then returned to run the newly-opened London office, where he heads up a team of six. There are high hopes for London, which is growing steadily and forms a natural transport and communications link with three other studios in Sheffield, Birmingham and Kent.

So, how did all this begin? Well, Mr Bond and Mr Bryan set things in motion 28 years ago in Sheffield and this remains the company's head office. The education sector has been the core of its business and still accounts for around 70 per cent of its workload. From the late 1990s, the practice became extremely busy, benefitting from the Learning and Skills Council's Building Colleges for the Future programme.

As a result, Bond Bryan became specialists in this sector. "It's fair to say that we gained a national reputation in education," says Greham. Indeed, it developed into the "go to" architects for further education projects.

But today diversity is the name of the game and the practice believes the skills and experience gained in the education sphere transfers readily into commercial, residential and advanced manufacturing.

"For example, the university sphere has proved vital in our growth via research in collaboration with industry which has led into advanced manufacturing. One example is the work we have done at Sheffield University with the likes of Boeing and Rolls-Royce," says Greham.

Bond Bryan sees its management structure as key to its strength. The practice is owned and led by its team of Directors, with the Managing Director



Jonathan Herbert, Finance and Resources Director and Director for Systems and Technology being joined by seven Studio Directors whose main role is to work with clients on projects.

The Sheffield studio is housed in a converted church building in the suburb of Crookes, with around 80 people working there under Directors Geoff Halliwell, Kevin Grayson, Bruce Raw, John Lee, Darren Southgate and Steve Buxton.

In Kent, it is the sole occupier of a modern purpose-built three-storey studio in Westerham near Sevenoaks, which was established six years ago and has around 35 people guided by Directors Jeff Stibbons and Stewart Paine. It handles all projects throughout the south.

Birmingham, meanwhile, is Bond Bryan's latest venture – opening just last December in the i2 Business Centre at Two Snowhill, a new 'Grade A' office development in the heart of the Colmore Business District.

Continued overleaf...

'Truly successful buildings are created from a dynamic synergy between client and architect. It is the desire to achieve this, which makes our projects a success, and a reflection of the way we think, work and design communities'

Bond Bryan Architects

### At a glance...

Formed 28 years ago in Sheffield

Reputation based on education projects

Directors leading 120 staff

Four studios around the UK

Three recent award-winning designs

UK and international markets

It is led by Associate Director Fran Holloway who has extensive knowledge of the Midlands and has been working on the National College for High Speed Rail. Again, there are huge ambitions for this studio.

All the Directors are members of the Board and devote significant time to clients, the design process and leading projects. They lead skilled teams comprising Architects, Technologists, Technicians, Interior Designers, Landscape Architects and Visualisers.

Another vital element is the Strategic Team advances the specialist sector knowledge and also delivers strategic property advice to clients. Essentially, the Strategic team develop the brief to enable the project moves forward.

In addition, the various support teams develop, among other things, Building Information Modelling (BIM) capability and develop and maintain Information Technology Systems. And Rob Jackson is viewed as key here. He is the BIM expert and the person who ensures the quality of information provided internally and to clients and, basically, offers support for all colleagues in the business.

This allows Bond Bryan to provide a package of services covering: Strategic Property Advice, Masterplanning, Feasibility Studies, Concept Design, Design Development, Project Delivery and BIM application/collaboration.

Given the practice's strong structure and sense of service, it is easy to see why it has a wide-ranging portfolio of projects. These cover schools, colleges and universities — such as the Nottingham University Technology Entrepreneurship Centre — through civil nuclear, hotels, commercial, automotive — such as the Volkswagen building in West London — and into residential and advanced manufacturing like the the Factory 2050 scheme.

Indeed, Nottingham and Factory 2050 – along with the David Hockney Building at Bradford College – are award winners, something of which Bond Bryan is immensely proud.

What of the future? The practice is looking to develop its business on a



number of fronts – particularly, higher education with all the advantages it brings as a route into the advanced manufacturing sector, plus residential and commercial. As well as its many UK projects, the practice maintains an international presence based on partnership relationships on the ground in places like China and the Gulf States.

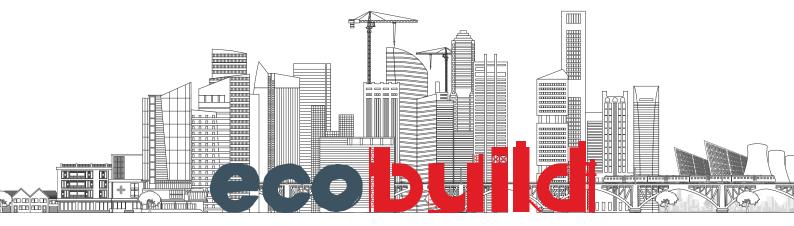
A final word then from Greham Raynham: "Our biggest challenge is that we work in a highly-competitive market with the intensity of the information which is demanded. However, we feel that with all the skills, experience and knowledge gained from our education sector projects we have a great platform to achieve our goal of greater diversification."

Clearly, Bond Bryan has carefully built its reputation for the design and delivery of high-quality projects in the public and private sectors – something which should fill it with confidence and a strong sense of purpose in the years ahead.

By Norman Hayden – norman@netmagmedia.eu







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# **Q&A** corner

# Norman Hayden interviews David Wallace of Chapman Taylor

David Wallace is a Director of Chapman Taylor based in London. He joined in 2015 and leads its leisure and hospitality sector. David was Senior Vice President at Warner Bros for 15 years and completed over 170 cinema projects in 13 countries.

# Why did you become an architect?

From a young age, I was always drawing at any spare opportunity, building models and making things. Clearly I was wired that way. Thoughts of a career in architecture then began to form in my mid-teens.

## What do you like about it most?

I get excited about the process of having an initial idea, creating a sketch, then going through the whole complex process of taking that initial idea through to completion. The discussions and debates, the skills of other team members, the constructors and the whole process is quite extraordinary and unique. When the end result is a good building, all of the above becomes extremely rewarding.

# What is your proudest achievement and why?

That would be the completion of the Warner Szitic Cinema in Chongqing China, 2006.

I had relocated to Shanghai in 2005, taken control of an office where most of the staff had recently resigned and Chongqing is notoriously famous as a very difficult place to do business. The whole process was maddening, but we got there and the project was completed on time, to budget and to the applause of the owner. The opening event was a very proud moment to share with my team. And Chongqing is now one of my favourite cities in China.

# What has been your biggest challenge?

My most recent biggest challenge was the completion of the CW+ MediCinema, a charity cinema, in the Chelsea Westminster Hospital, London. The design challenges were multi-fold. On plan, the building location was literally in the centre of a very busy hospital. On section, it was suspended in the middle of an atrium, below was a school and, above, a multi-faith area. Both school

lessons and prayers cannot be interrupted by the noise from a loud movie in the cinema. There was also an expansion joint right through the middle of the cinema – tricky for acoustics!

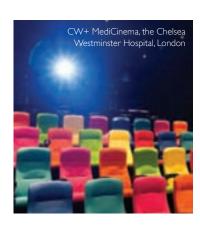
For construction, the challenges were also multi-fold: the existing structure did not have much more redundancy for the new loading, the hospital would remain open 24/7 during construction and excessive dust and noise was prohibited. So, logistically, the building period was challenged from day 1. This project reminded me of undertaking a marathon – so long as you keep taking more steps forward than backwards, you will eventually reach the finishing line! The client I expect could not agree more.

# What single change would make an architect's job simpler?

A mandatory fee scale. This would allow the architects to focus on the job at hand, be chosen for their skill as opposed to price and ensure the fee allowed for the necessary allocation of resources from A-Z.

'In Japan, even the simplest junction of a door frame to a skirting is executed perfectly'

David Wallace of Chapman Taylor







'Every day, new materials, computer programmes and ways of doing things evolve'

David Wallace of Chapman Taylor

# What is your favourite medium?

I still like drawing with a pencil on paper. For immediate explanation of an idea, this is still the quickest and most effective. For the next stage, some of the new 3D packages are really quite amazing how they can model complex geometries, mimic surface material, reflection etc.

# What can we learn from architects overseas?

Everything that we do not do well. In my career I have been very fortunate to have built projects in over 15 countries. In China just now, the pace of development is so fast and we can learn a lot about clear decision-making, command structure and implementation. It is



amazing to see a complex project go from sketch to reality literally in front of your eyes. This contrasts with a very formal and egalitarian driver process in the west.

In Japan, even the simplest junction of a door frame to a skirting is executed perfectly, straight lines are built rigid straight, curved lines beautifully executed with no facets. Workmanship in Japan is exceptional.

In Mongolia, I was trying to find imported acoustic insulation materials. The contractor suggested yak wool, same as is used to insulate the yurts in the frozen winters there. It was a perfect solution, delivered to site the next day and very inexpensive. We have so much to learn from foreign cultures. Working in an international practice like Chapman Taylor means we learn things from our colleagues in studios overseas all the time.

# What will be the next big thing in the industry?

The whole industry is in a state of flux and change and that is what makes it interesting. Every day, new materials, computer programmes and ways of doing things evolve. I can particularly see increased collaborative modelling, such as Revit, growing in use among all team members. How this is managed, the different stages delivered etc. will be the challenge and opportunity ahead.

Building designs have increasingly complex geometries, service requirements and uses.

# How do you see an architect's role changing?

As buildings become increasingly specialised, I see architects becoming increasingly specialised in their fields. In the UK, under the current procurement culture, I see the architect's role continue to be diluted. By contrast, in Asia, architects with real skill will be in demand and be able to take a leading role in their projects.

# Are there limits to the part technology can play?

As technology is restricted only by man's ability to think and innovate, I doubt it will have real restrictions. Every day it develops in a forward motion.

# What are your hopes for 2016?

Apart for world peace and to meet my targets, Chapman Taylor's hospitality sector, which I lead, have a number of hotel projects completing this year. Curio Hilton in Qatar and Brighton Hotel in Pattaya, Thailand. My focus will be that these projects complete successfully and we can build the sector from there.

# Unique design for redeveloped Woolwich school

'We are able to promote excellence because the buildings are so crisp and sharp it enables us to model excellence in all we do'

Headteacher Rupinder Bansil

Pellings LLP has taken an innovative design approach to deliver the complex replacement of Foxfield Primary School in Woolwich, London.

The £10.2 million redevelopment of the primary school was undertaken for the Royal Borough of Greenwich, and saw an existing 1970s Two Form Entry Primary School, which was no longer fit for purpose, demolished and transformed into a modern, BREEAM Excellent Three Form Entry Primary School on the same site.

A larger school was required to serve the densely populated surrounding area, and a strong connection between the school and the local community was also an important prerequisite.

One of the building's most dramatic design features is an internal "canyon" in the centre of the building, which cascades down over four floors, working with the site's steep topography. The canyon is the hub of the school with classrooms opening out onto it, ensuring there is a strong visual link throughout the four floors bringing all year groups together.

The design of the building has contributed to an 'outstanding' OFSTED report in November 2015.

Headteacher Rupinder Bansil said: "There is a fantastic use of natural light. This is an urban environment and as the children come from confined spaces in their home lives, the school gives them fantastic space allowing freedom of movement both in-doors and out-doors."

"We are able to use the buildings as a real overall learning space — a learning space for the children in the classrooms, for the use by parents for courses and workshops and for teacher-training.

"We are able to promote excellence because the buildings are so crisp and sharp it enables us to model excellence in all we do as a learning and teaching environment."

Neill Werner, head of architecture at Pellings commented: "A largely glazed roof means natural light pours down



through the canyon, ensuring that even the depths of the school on the first floor benefit from daylight. It also creates a circulation function encouraging free movement throughout the school for teachers and pupils without the need for corridors. In addition, the canyon provides specialist teaching areas with far reaching views and dramatic top-lit central multi-use space."

Due to the steep topography the school's main entrance is accessed via a bridge that spans the gradient and links to the main entrance. The bridge is linked to a public, landscaped piazza that acts as a meeting place for parents and children. Although the bridge can be closed outside of school hours, the piazza is fully accessible to the public for use at all times, enhancing the school's links with the local community.

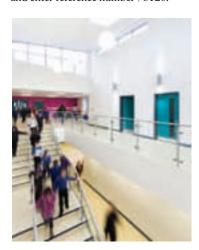
Externally every inch of space is utilised – existing grass banks that previously had little function were removed and turned into an amphitheatre for arts performances. Classrooms open out onto roof decks that are used for external teaching, and have sweeping views of London's City Airport. A "discovery trail" runs through the school's grounds, which has been carefully designed to provide a variety of learning environments for pupils.

Intensive consultation with staff and governors was an intrinsic part of the design development, where design

potential was fully explored as a tool to meeting site challenges. An openminded approach adopted by the senior management team greatly contributed to the successful outcome. Community engagement was also critical, generating a true sense of ownership for local residents and parents.

The school was unable to close while construction work was undertaken, so it remained in full occupation while the existing school was demolished and rebuilt. The school's BREEAM Excellent rating has been achieved via intensive use of energy efficient features such as green roofs, PV panels, rain water recycling and passive stack ventilation.

For more information on the project, please visit www.architectsdatafile.co.uk and enter reference number 78120.





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### **NEW SCHEME**

# Stunning images of Silvertown in London's Royal Docks released

New images have been released of Silvertown, a new £3.5 billion scheme in East London that has recently received Mayoral approval. The transformation of this 62 acre site at the heart of The Royal Docks will create new spaces for companies to provide experiences for their customers, up to 21,000 new jobs, 3,000 homes and an additional £260m a year to the London economy.

Millennium Mills, the iconic flour mill at Silvertown will be home to hundreds of businesses so they can demonstrate their creative and technology innovations. Silvertown will buzz with energy and activity through new restaurants, a new school, much needed local convenience retail facilities and significant public spaces for community use, including 1km of accessible water frontage. Silvertown will create:

- 5,000 new jobs in phase one
- 7m sq ft of new commercial and residential space
- 5m sqft of commercial space
- 2m sq ft of residential (up to 3,000 new homes)
- Up to 20,700 new jobs in total

• £3.5 billion gross development value For more information on the project, please visit www.architectsdatafile.co.uk and enter reference number 73007



### ВООК

### This Brutal World

## Peter Chadwick – Available May

This Brutal World, published by Phaidon this May, is a global survey of Brutalist architecture from the beginning of the 20th century to the present day.

The book, by graphic designer and Brutalism enthusiast, Peter Chadwick, takes a wide and celebratory view of Brutalism, redefining and expanding the term 'Brutal' to include buildings usually considered outside the movement.

Canonical projects by leading Brutalist architects including Le Corbusier's Unité d'Habitation (France, 1952), Paul Rudolph's Faculty of Art and Architecture building at Yale (USA, 1964), Louis Kahn's National Capital Complex (Bangladesh, 1983) and Marcel Breuer's Saint John's Abbey Church (USA, 1961) are featured alongside virtually unknown Brutalist treasures from across the world like Russia's Central Research and Design Institute of Robotics and Technical Cybernetics (1987) and Brazil's Centro de Exposições do Centro Administrativo da Bahia (1974).

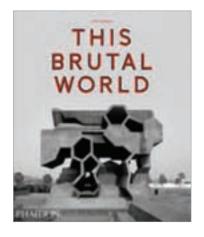
The book demonstrates the international reach of Brutalism with projects

from around seventy countries. Examples include Argentina's Bank of London and South America, Hungary's Transformer Station, Spain's Igualada Cemetery Park and Uzbekistan's Indoor Tennis Stadium.

It demonstrates the ongoing influence of the movement today, including projects by major contemporary architects such as Zaha Hadid's Bergisel Ski Jump (2002), John Pawson's Stone House (2010) and Herzog & de Meuron's Reading Space (2006).

Chadwick's introduction includes a personal account of his own journey of discovery, and passion for Brutalist architecture. He reflects on the utopian ideals behind 1960s housing estates; growing up in the North East of England in the 1980s – when industrial monoliths like British Steel's Dorman Long Coke Oven Tower first made an impression on him – and Brutalism's relationship with music from the repetitive beats of Cabaret Voltaire and Warp Records' artists to the lyrics of tracks such as Pulp's Sheffield: Sex City (1992) and Saint Etienne's When I was Seventeen (2012).

Around three hundred projects are



illustrated with a single black and white photograph and accompanied by a brief caption. Throughout the book quotes from architects, artists, songs, film and literature complement the projects, from Charles Baudelaire to Joy Division and Serge Gainsbourg to The Human League. Examples include David Bowie's *Thru These Architects Eyes (1995)*: "All the majesty of a city landscape / all the soaring days of our lives / all the concrete dreams in my mind's eye / all the joy I see through these architects' eyes."

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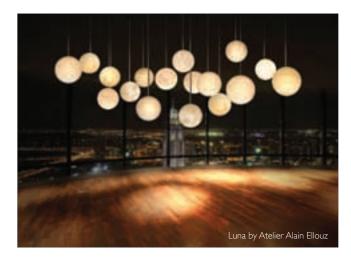
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# ARCHITECT@WORK UK 2016 at London's Olympia National



ARCHITECT@WORK UK 2016 took place at London's Olympia National on 27-28 January. The carefully curated two-day trade fair aimed at architects, designers and specifiers featured exciting collaborations, exhibitions and talks.

Over 90 leading architectural suppliers from Europe offered the latest innovations in surface solutions, lighting technology as well as interior and exterior fixtures and fittings. All of these companies went through a rigorous selection process, with an external judging panel overseeing the product selection. This process ensureed that ARCHITECT@WORK was one of the UK's most highly respected, curated trade shows of its kind.

This year's London ARCHITECT@WORK chose wood as its theme. To honour this beautiful material, London's SCIN GALLERY, Materials Library and Resource, presented a collection of wood curiosities called Growth Rings. The exhibition examines the species of trees that give us the wood we use in architecture, it looks at the DNA of wood and its physiology.

Curator Annabelle Filer says, "We are delighted to have been asked to examine wood in this way. As a natural material it has so much depth to its uses and is so versatile. Our exhibition aimed to explore this in an architectural context."

Several talks were featured over the 2 day event, including "The Rotunda Serotina: The historical, technical, environmental and phenomenological aspects of wood", "RIBA debate on Housing in London" and "Designing and Building on the Thames".

Another feature of this year's edition was the photography exhibition put together by World-Architects.com, featuring case studies of 50 new buildings from both globally recognized practices to new work from emerging young practices. The exhibition highlighted work from all of the countries in which ARCHITECT@WORK exhibited and was a visual feast for architects and designers alike.

For more information on what else took place at the event, please visit www.architectsdatafile.co.uk and enter reference number 51116.

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GARAGES I GARDEN ROOMS I ORANGERIES I HOME OFFICES I CONSERVATORIES I BARNS I STABLES

# international focus

Visit the website www.architectsdatafile.co.uk and enter the reference number for more information







Global construction consultancy Turner & Townsend has been chosen to project manage the restoration of Canada's historic Massey Hall. The Massey Hall Revitalisation project in downtown Toronto — expected to be completed by 2021 and to cost an estimated £72 million will involve careful restoration of the interior and exterior of the 120-year-old building. The design has been developed by KPMB Architects. The restored Massey Hall will include enhanced, physically accessible patron and artist amenities as well as space dedicated to education, performance and artist development.





LINNAEUS UNIVERSITY, KALMAR, SWEDEN SKANSKA

Skanska has signed a ten year lease with Linnaeus University in Kalmar, Sweden, which results in a construction contract worth about SEK I billion. In addition, Skanska has received an order for conversion and extension of additional premises on the campus with an order value of about SEK 500 M.The contracts will be included in order bookings for Skanska Sweden for the first quarter in 2016. The goal is that the refurbishment, the extension as well as the new construction will be environmentally certified in accordance with LEED. Construction will begin in February.

Ref: 69943

## exploring architecture

featuring the latest projects from around the world



## NEW AIRPORT IN ISTANBUL, TURKEY AECOM

A spectacular tower in the shape of a giant tulip will become an iconic symbol of the new airport in Istanbul. As part of an international competition to build the future control tower, the operating consortium IGA selected the sensational design submitted by AECOM and Pininfarina. The design of the tower combines aspects of the modern with traditional elements. The twisting form is based on a tulip, which has been the symbol of Istanbul for centuries. The gracefully curved, 96-meter high building, which will be visible to all passengers flying into or out of the new major airport, is also reminiscent of the forms used in aviation design.

Ref: 18391



## XUZHOU SUNING PLAZA, CHINA BENOY

Benoy has celebrated the topping out of Suning Plaza in Xuzhou, China on 29 December. The firm is undertaking a multi-disciplinary scope on the development, delivering the retail architecture, interior design and graphic design of the mixed-use project. The development will be Benoy's first completed project in the city. The scheme consists of an 112,000m² high-end retail podium which anchors two office towers, a Hyatt hotel and two serviced apartment towers. Positioned directly above a MRT station, the development seamlessly connects into the city's underground transportation network.

Ref: 10445



## STATE LIBRARY VICTORIA, MELBOURNE, AUSTRALIA SCHMIDT HAMMER LASSEN ARCHITECTS / ARCHITECTUS

schmidt hammer lassen architects along with Architectus have been shortlisted for the \$83 million State Library Victoria Vision 2020 Redevelopment Program. The aim of the program is for the library to reaffirm itself as the state's education and creative centrepiece and help benefit more by expanding the State Library's reach and relevance within the community while also celebrating the building's magnificent heritage and returning significant spaces to public use. It will firmly position Australia's oldest and busiest public library as a contemporary centre of knowledge, inspiration and innovation.

Ref: 24184



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# cpd focus

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## TWO NEW RIBA ASSESSED CPD SEMINARS FROM COMAR



In two RIBA assessed seminars, **Comar** outlines:

'Stand & Deliver: a Study of curtain Walling' – the design of curtain walling, it's properties and how it is used by specifiers. This seminar aims to offer an understanding of the points of HII in the NBS specification system, and how best to make use of it.

'Designing functions & reliability into entrances' — the issues that influence the function of main entrance design and technology. This seminar aims to offer an understanding of how user expectation influences door design and links this with hardware selection, entrance configuration and floor finishes.

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#### INTRODUCTION TO THE LRWA



The Liquid Roofing and Waterproofing Association announces the launch of its RIBA Approved CPD presentation, exclusively available online for specifiers, architects, and surveyors; allowing time conscious professionals the opportunity to gain CPD points without having to set aside a specific time during the working day to go out and attend a seminar. Specifiers who complete the CPD will also be able to understand the technical and financial benefits of specifying liquid applied roofing and waterproofing systems, as well as learning about the product and installation standards that have been set within the industry to ensure optimum performance is achieved.

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### SOLID SURFACES CPD SEMINAR



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FOAMGLAS® has brought the number of its RIBA-certified CPD presentations to eight with the introduction of 'Reducing thermal bridging' and 'Load-bearing conditions', both focussing on use of cellular glass insulation. Elimination of thermal bridges is essential where elements of the building penetrate its insulated fabric or where the structure penetrates the building envelope. Similarly, load bearing insulation must resist compression, deflection and movement in order to provide ongoing continuity of insulation. FOAMGLAS® insulation will neither compress nor degrade.

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## continuing professional development

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#### CPD GUIDE LOOKS AT HYBRID **HEATING AND COOLING**



The latest free CPD-Accredited guide from Mitsubishi Electric looks at the challenges faced by our built environment due to increasing legislation, the drive for energy efficiency and the need to reduce CO2 emissions. This free guide looks at the pros and cons of existing options whilst examining alternatives such as the innovative Hybrid VRF system which removes the need for leak detection by using water instead of refrigerant in occupied spaces.

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### POLYPIPE'S NEW SPECIFIER'S GUIDE



Polypipe Ventilation has expanded its specifier support services with the launch of a new dedicated Specification team, expert technical design services, Specifier's Guide and editable Specification Clause documents, in addition to releasing the first in a series of CPDs, commencing with the topic of indoor air quality. The new Specifier's Guide features Polypipe's range of specifiable ventilation solutions including Silavent whole house ventilation systems and energy efficient fans, along with Domus ducting systems.

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### HIGH PERFORMANCE CURTAIN WALLING



REHAU's new high performance curtain walling CPD has just been approved by RIBA and is available to book now. The CPD examines the different curtain walling options - ladder, stick, unitised and structural glazing and explains the differences between them and the most appropriate applications for each. It also covers the key design criteria from material, spans and fixings to finishes, glazing and ventilation; and there is a detailed focus on the load considerations which apply when calculating curtain walling designs.

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# editor's product focus

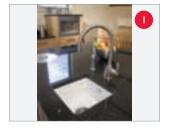
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### 2. SELECTAGLAZE

Controlling the environment within hospitals to avert the spread of disease and infection is very important. Selectaglaze secondary glazing creates an excellent barrier to help prevent this and has a wide range of healthcare products; from switchable glass, anti-ligature furniture and units that are Secured by Design accredited. Many hospital buildings of traditional construction are not particularly energy efficient and suffer from poor insulation. Secondary glazing with low-E glass can reduce U-values to less than 1.9. Established in 1966 and Royal Warrant holders since 2004, Selectaglaze has a wealth of knowledge and has worked on all building types.

enq. 125

### 3. MICHELMERSH BRICK HOLDINGS

MBH PLC has introduced bimbricks.com, the one-stop website for designers, contractors, facilitators and BIM managers to visit, explore, download and interact with freely available files and product information. Frank Hanna, joint chief executive officer of MBH PLC said: "The website offers a clean, simple place to access all the new high resolution BIM data, catalogues and certifications of all our products to use in projects. The rapid changes in technology and building practices means it is essential to have a platform that can keep up to speed with government policies for professionals, assist in creativity and provide information for the construction management processes of the future built environment."







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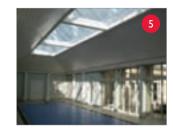
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### 5.WHITESALES

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### 6.WETHERBY

The recently completed fully certified Passivhaus scheme pictured was commissioned by Southern Housing Group. The project comprises of 16 houses and 12 apartments on a 1.5 acre site. Wetherby Building System's Silicone 'K' Render along with 230mm Phenolic was specified for the project. Fortunately external wall insulation with render was not a planning issue, because the island has quite a characteristic 'sea sidey' aesthetic, with little exposed brick work. The buildings were finished in a striking white render in keeping with the theme. The successful application of EWI has seen exceptional results which achieve finishing U-Values of 0.1 W/m<sup>2</sup>K.

enq. 129

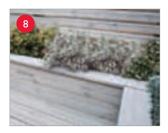
### 7. EYESTONES

Sync-box, from Eyestones, is a totally unique recessed power & AV socket, for use when installing wall mounted flat screen televisions. Essentially it is designed around a standard double socket space using the same module components already being used throughout the globe.

Sync-box is recessed by 40mm and has a unique cover plate which when in location, has a slender 10mm profile. Therefore, it is now possible to install a new ultra thin LCD or LED screen with all cables connected professionally and stylishly behind the screen.

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### 8. HOPPINGS

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#### 9. RUBB

A respected helicopter operator company asked Rubb to design, manufacture and construct a fabric helicopter hangar for operations at the Falkland Islands. The Bristow Group has been successfully using a Rubb hangar at Norwich International Airport since 2010. Bristow bosses decided a similar fabric structure would be the best solution to house three Sikorsky S-92 helicopters at Port Stanley. The new BVE helicopter hangar facility measures 39.5m span  $\times$  45m long  $\times$  6m to eaves. It features a 30m wide  $\times$  6m high manual sliding door. The hot dipped galvanized steel frame is clad with an inner PVC skin insulated with encapsulated rock wool designed to achieve thermal efficiency as specified in UK building regulations.



enq. 132



## BAL expands specification support team

Building Adhesives Ltd (BAL), a market-leading manufacturer of full tiling solutions including adhesives, grouts and ancillary products, has hired two new Specification Managers as part of its drive to expand its specification support team. Alan Thurston and Tracey Hopkins will work with architects, designers and specifiers supporting them on M40/M20 specifications, providing project support and delivering RIBA-accredited CPDs. Tracey will deliver support in North West and South West London while Alan will work with clients in the Midlands. Alan has more than 20 years' experience in the flooring sector, working alongside architects, specifiers, contractors and sub-contractors for companies including Altro, Polydeck Resins, and RSL. Key installations Alan has supported include flooring for Chelsea Football Club, Wimbledon, and BAA. Tracey also has significant experience in the flooring and walling sector with companies including Tarkett UK, Altro, and Interface supporting end-users, designers, contractors, distributors and architects on key projects and delivering RIBA-accredited CPDs.

01782 591100 www.bal-adhesives.com





### Architects Datafile team get muddy for charity

On 9 April 2016, the Architects Datfile team will be taking part in the Royal British Legion Major Series, a demanding 5K course full of military obstacles and thick mud!

All participants will wade through muddy streams, 'stench trenches' and negotiate 'vanishing bridges' and a number of other hurdles while raising money for the Kids Cancer Charity (www.kidscancercharity.org formerly Christian Lewis Trust).

What our office based staff can expect on the day could not be more of a contrast to the day-to-day routines of publishing trade magazines and websites. As a result, we are sure there will be great trepidation as the day arises, however, each member is fully committed to completing the event – finishing with a 50m water slide. We have set a target of £1,500 to raise so please give generously to this great cause by visiting www.justgiving.com/netMAGmedialtd or you can text a donation by texting NETM99 £3 (or any other donation amount) to 70070.

01435 863500 www.justgiving.com/netMAGmedialtd

### New design and specification consultant



Washroom Washroom has continued to strengthen its position following the appointment of a dedicated design and specification consultant. Kevin Grieve, who has more than 15 years' experience within the washroom sector, has played a key role in the specification of washroom facilities for projects including Marks and Spencer stores, the London 2012 Stadium, Lord's cricket ground and the Royal

Festival Hall. He pioneered the use of creative digital imagery for cubicle panelling and has worked closely with architects for many years. The primary focus of the new role will be to identify new product streams and ensure that Washroom continues to manufacture products which are specifically designed to meet the needs of an ever-changing marketplace.

### Opportunity to be a TTA Awards sponsor



There are superb sponsorship opportunities available at this year's TTA Awards. These will enable companies to get pride of place for their brand at the tiling industry event of the year. The Awards are to be held on Saturday 14 May at St John's Hotel

and Conference Centre in Solihull. They will recognise the cream of the industry's people, projects and products across 18 categories, in the course of a gala evening of celebration and entertainment. Event sponsorship packages include many benefits, including complimentary tickets, numerous Awards Night branding opportunities, extensive pre- and post-event PR and also the chance to present an award at the event. For more information please contact TTA.

0300 365 8453 www.ttaawards.com

### enq.136

### SFE FAÇADES2015 winners announced



The winners of **Society of Façade Engineering's** FAÇADES2015 have been announced. The quality of entries overall as well as the winners is said by the judges to have 'significantly advanced the discipline of facades engineering and design.' RIBA President Jane Duncan, pre-

sented prizes for three categories. Winner of the Facade of the Year 2015 – New Build category was Flynn Group for the Ryerson Student Learning Centre in Toronto; Facade of the Year 2015 –Refurbishment was awarded to Arup Facade Engineering for the Guys Hospital Tower; and Outstanding Facade Innovation 2015 was awarded to both Arup and Bellapart for the Bombay Sapphire Distillery.

0208 675 5211

ww.cibse.org/Society-of-Facade-Engineering-SFE

### enq.138

### ISD Solutions appoints Mike Goodhead



ISD Solutions, has launched a new division targeting the massive industrial and structural waterproofing sector. ISD Industrial Waterproofing Division will complement existing projects and enhance the range of technical construction services offered to clients, architects and main contractors. The company has appointed divisional manager Mike Goodhead to head up the new division. Goodhead brings

over 32 years' expertise in the waterproofing industry. The new division will focus on industrial waterproofing installations for bridge decks, loading bays, car parks and associated works as well as commercial and industrial roofing projects; both new build and refurbishment.

01452 520649 www.isd-solutions.co.uk

### eng.140

### Double award nomination for Vent-Axia



Ventilation manufacturer **Vent-Axia** is delighted to announce it has been shortlisted in two categories in the prestigious H&V News Awards 2016. The company is celebrating its Sentinel Kinetic 200ZPH mechanical ventilation with heat recovery (MVHR) unit reaching the final in the Air Movement Product

of the Year and Domestic H&V Product of the Year categories. Vent-Axia's 200ZPH is a ground-breaking product that is both efficient and effective. Developed to address comfort issues in modern thermally efficient homes the 200ZPH helps avoid overheating with its unique summer bypass algorithm. Highly efficient the 200ZPH can transform the indoor environment of a home.

0844 856 0590 www.vent-axia.com

#### eng.135

### Kingspan Insulation reports sustainable success



Kingspan Insulation has published its latest Sustainability & Responsibility Report, highlighting a year of continued growth and sustainable development. To ensure transparency, this report has once again been conducted under the rigorous requirements of the Global Reporting Initiative (GRI) Sustainability Reporting Framework Level B+ and is backed with external assurances. The company

is firmly committed to maintaining the highest standards in responsible sourcing. All Kooltherm, KoolDuct and Therma insulation products and cavity closers manufactured at its sites in Selby and Pembridge are now certified as 'Excellent' under the BES 6001: Responsible Sourcing of Construction Products standard.

01544 387 384 www.kingspaninsulation.co.uk

### enq.137

## Extraordinary fit show first with SageGlass®



In a dramatic move to provide a live-showcase for its product, US manufacturer SAGE will introduce its electronically tintable SageGlass\* in the UK by replacing a glass wall at the Telford exhibition centre during the Fabricator Installer Trade Show. The installation will allow the real-world demonstration of SageGlass Lightzone, which allows the creation of up to three variable tint zones within a single pane of glass, throughout the

three days of the event. When installed the glass will be automatically controlled by four external light sensors which detect predetermined light levels at which the SageGlass will tint from the clear state of 60 per cent light transmission in four stages down to only one per cent light transmission.

0845 0945 077 www.fitshow.co.uk

enq.139

### Gerflor inspires at The Building Centre



The Building Centre in the heart of London's West End is in a sense an alter to the levels of building and design excellence in the UK. It exists to solely promote innovation in the built environment. With a permanent display at The Building Centre, international flooring and interiors specialists

Gerflor is able to provide samples of its high quality flooring and designs to the architectural and design community. Available upon request are also RIBA approved seminars, product selection & technical advice, pricing and quotations from the dedicated London specification team who combined have over 50 years' experience in servicing customers with renovation and new build projects.

01926 622600 www.gerflor.co.uk

eng.141

### 175+ top brands and new names flock to Fit



Within three short years **The FIT Show** has become the place to see and be seen in the UK window, door, glass and conservatory market and this April will bear witness to the biggest FIT Show yet, with more than 175 top suppliers taking part in

a show that is stuffed wall-to-wall with new products. But while most of the top brands will be stacking their stands between them with hundreds of products that will be seen for the first time anywhere, more than 35 brand new names will be taking space for the first time at The FIT Show. The new exhibitors represent a huge diversity of products and services. The FIT Show takes place at The International Centre Telford on the 12, 13 and 14 of April 2016.

0845 0945 077 www.fitshow.co.uk

enq.142

### Norbord announces £95 million reinvestment



Norbord has announced a £95 million modernisation and expansion of its oriented strand board (OSB) mill in Inverness. The investment will upgrade the mill to continuous press technology and nearly double its production capacity, positioning it to meet growing demand for OSB in markets across the United Kingdom

and Europe, as well as securing the long-term future of its employees and the indirect jobs it provides across the region. The investment is further supported by a development grant from Highlands and Islands Enterprise of up to €15 million. The expanded mill − which Norbord expects to come online in the second half of 2017, with no disruption to production in the interim − will continue its commitment to sustainability.

### Component Developments provides Cafe Royal a stainless solution



As part of The Crown Estate's £1 billion investment programme to redevelop Regent Street, world famous hotel – Cafe Royal underwent a major makeover. The hotel features 159 rooms, an array of dining venues, a private members club, a wellbeing spa, a gym and an 18 metre luxury swimming pool. Stainless steel, building product specialists Component Developments, manufactured and supplied several different products at various stages of the four year refurbishment. To start with, 26 large stainless steel gully pots were installed throughout various kitchens and wet areas. Many of these included removable waste baskets, odour traps and rodding ports where necessary. A further 20 stainless steel drainage channels were installed in lengths up to 9.5 metres. Each manufactured to suit a concrete and tiled floor finish and topped with an open mesh, anti-slip grating. Component Developments worked closely over the four years with the kitchen design team and on-site contractors, to offer real hands on support throughout. Other stainless steel products supplied to the project by Component Developments were, access covers, buffer rails, skirting guards and corner guards. Please visit Component Developments brand new website for more information.

01952 588488 www.componentdevelopments.com

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### Door closers help retain features



Powermatic controlled, concealed door closers from Samuel Heath are perfect for use in heritage and historic buildings where modern fire safety and convenience features need to be introduced, but where the retention of important, often historically significant, features and finishes is vital. Meeting all

relevant fire and accessibility requirements, Powermatic door closers deliver many advantages over surface-mounted door closers and floor springs. Fitting neatly between the door and frame, Powermatic door closers are totally concealed when the door is closed, and particularly unobtrusive when the door is open, enabling the appearances of doors and interiors to be retained. They are available in nine finishes, to complement most decorative requirements.

### Scotland the brave



The latest changes to Section 6 of the Scottish Building Standards brought with them a 43 per cent uplift over the 2010 Standards, significantly leapfrogging the requirements of both England and Wales in terms of the thermal performance of new buildings. The EPIC Guide to the Conservation of Fuel and Power Regulations covers a number of the key changes that have been made since the last update. SBEM v5 is now used to

calculate carbon dioxide emissions, and both changes to methodology and revised carbon factors for fuels apply. More comprehensive guidance on consequential improvement of fixed building services has been issued, and there is also a revised list of situations where airtightness testing need not be undertaken.

eng.145

0330 221 0499 www.epic.uk.com/energy.jsp

enq.147



# Modern design houses stories from deep time

The Jurassic Coast is getting its first dedicated fossil museum thanks to National Lottery Funding and one collector's generosity, reports Steve Menary

ver the past four decades, Steve Etches has collected more than 2,200 fossils from along the area of the Jurassic coastline that he lives in.

The collection is probably worth hundreds of thousands of pounds, if not more, but Etches wants to give it all away.

"I don't need the money at my age," says Etches. "I don't need cars or holidays on cruise ships and I want to keep all these artefacts in the area they were discovered."

The area is the coastline near the tiny Purbeck village of Kimmeridge, which has a population of only around 100 people but is the unlikely location for a new £5 million museum.

The tiny village nestled into the Purbeck coastline has needed a new village hall for years. The existing hall dates back to World War One, but in a time of austerity and government cuts funding that sort of project was always unlikely.

That all changed in 2011, when local resident John

Woodward came on board. Suddenly, plans for a village hall that could house some fossils became a sustainable fossil museum that would double as a village hall.

The Museum of Jurassic Marine Life and the Kimmeridge Village Hall Trust merged to become the Kimmeridge Trust. With a new focus, the project attracted millions of pounds in funding.

With the Heritage Lottery Fund alone putting up nearly £3 million, other donors have come forward. These range from the Clore Duffield Foundation to Dorset County Council and Perenco, the oil company drilling in the region.

Different architects had worked on the old plans that had the village hall element to the fore. As the trust changed the focus, a new designer was appointed.

London-based practice Kennedy O'Callaghan Architects were brought on board and charged by the trust with meeting a brief that had a zeal for sustainability at its heart but also a Continued overleaf...





need to fit in with the local Purbeck vernacular.

"The activity and learning side of the museum has had a major impact with the design," says Mr Woodward, who along with his wife Margaret was awarded an MBE in the 2015 Queen's Birthday Honours' List and has been the driving force behind the project.

In addition to exhibition space, the museum will include a workshop where Mr Etches, watched by the visitors, can work on the fossils that he continues to rescue from the Jurassic Coast.

Kimmeridge attracts around 150,000 visitors a year. The museum's business plan aims to attract around a quarter of those tourists and admission fees will be £8 for adults and

© Steve Menary

£4 for children. With 30 parking spaces and more available in nearby fields, the trust anticipates attracting school groups but the sustainable ideals stretch beyond the business plan.

Mr Woodward adds: "The other design factor I put in was that running costs must be minimal."

The design drawn up by Kennedy O'Callaghan includes seven geo-thermal boreholes with heat exchangers at the bottom, while the roof features a 100 square metre array of 26 photovoltaic (PV) cells.

Renewable Design Company is supplying the geothermal heating system, which powers under-floor heating from Warmer Floors. This specification allied to PV cells from Viridian Solar and installed by sub-contractor Elliott Roofing, is expected to produce total utilities bills of around £170 a year.

To put that figure in context, the footprint of the building footprint is 652 square metres. The upper ground floor and mezzanine measure 472 square metres and the lower ground floor 323 square metres. Overall, this provides a total gross internal area of 795 square metres shared between the museum and village hall.

"What we are trying to do is allow the space to be flexible," says practice principal Ken O'Callaghan. "Steve can use space for temporary exhibitions in the summer, when there is no education demand."

Kennedy O'Callaghan's design included a timber frame, which is being clad with wooden insulation supplied by Steico. The design also includes timber louvres with dampers behind supplied by Airsun Systems, while Kennedy O'Callaghan also specified wooden windows, which Living Wood has supplied.

The exterior walls are local Purbeck stone. The design team did look at Purbeck stone on the roof, but the extra weight and construction time made this impossible.

# Supplier details

Project:
Fossil Museum
Insulation: Steico
Timber louvres:
Airsun Systems
Windows:



Living Wood

Mr O'Callaghan explains: "Purbeck stone is irregular slabs, so the workmanship is longer. Local workmen told us that it takes four times longer to do a Purbeck stone roof rather than slate."

This would have added £100,000 to the cost. So Glendyne natural slate has been used on the roof instead with the exception of the section featuring the PV cells.

"Most PV cells are designed to go on the roof but these cells fit side-by-side and toe-to-toe so it's a whole roof array," explains Mr O'Callaghan, who adds: "It took a long time to create the details."

With the onus on sustainability and reducing running costs, the design of the museum eschews air conditioning but fossils need to be kept at a relative humidity (RH) of 40.

The fossil gallery section also has just one window, which will be shuttered most of the time, so this section of the building includes basic mechanical ventilation.

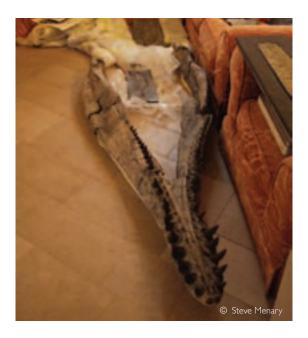
"We need mechanical ventilation to cope with the visitor numbers but it's not air conditioning," says Mr O'Callaghan.

The PV cells will power this ventilation, while 40 RH for the fossils will be achieved by using Art-Sorb, which is a moisture sensitive silica material that absorbs and desorbs moisture in order to offset changes in external relative humidity.

London-based consultants Event Communications, which has experience in museum design, are designing the exhibition space.

Event's design includes an innovative CGI projection so that visitors can see what the Kimmeridgian Seas looked like in pre-historic times.

In addition to housing around 200 fossils of the 2,200 fossils collected by Steve Etches in illuminated cabinets, CGI projections onto the ceiling will show the fossils as living breathing animals in their natural habitat.



This projection will change constantly from a sea of tranquillity to the primal violence that typified the everyday fight for survival in the Kimmeridgian Seas 150 million years ago.

Mr Woodward adds: "The concept is that you have life above and death below and you are coming into aquarium 150 million years ago. When they die, they morph into the fossils below.

"From our point of view, it's a subject that's at the academic end of the spectrum and we wanted to make it simple. You will struggle to find a Latin name anywhere. It's all about the art of the collector."

Continued overleaf...





When the trust went looking for a contractor to build the actual museum, the size of the project presented a quandary.

"We were in a difficult position," explains Mr Woodward. "We were too small for the big boys and too big for the local firms."

As a result, those companies shortlisted to bid were larger local outfits rather than the regional divisions of national contractors. Raymond Brown edged out bids from Dorchester-based Acheson Construction, Poole outfit Greendale and Herbert Drew from New Milton in Hampshire to win the contract.

Work started on site in the summer of 2015. Nestled in the hillside, the levels have been a challenge for the design and construction team but also enabled Kennedy O'Callaghan to gain height in their design.

The 3,157 square metres plot for the museum is opposite the Clavells restaurant and in the heart of the tiny village,

### 'We are going to explain what the Jurassic Coast is about and what it does; there's nowhere else that does that'

Local resident John Woodward

which is in an Area of Outstanding Natural Beauty.

As an unused space in the centre of the village, the site was an obvious place for the museum but the site had not been built on for good reason.

Mr Woodward adds: "There used to be a spring there, where the cattle were brought to feeding. There had also been a barn there in the fifteenth century but nothing since. We needed twentieth century technology to be able to use the site"

Due to the state of the site, which was owned by local landowner the Smedmore Estate, Raymond Brown's





construction team had to sink rafts of piles before laying foundations.

With a particularly clement winter in southern England work has progressed well. The museum is on course to open in the summer of 2016.

"We are going to explain what the Jurassic Coast is about and what it does; there's nowhere else that does that," says Mr Woodward, whose plans will not end with the museum opening.

With around 2,000 of Steve Etches' artefacts needing storage space, the trust has longer term plans for another part of the museum to be located at a nearby site at Blackmanston.

Here the trust hopes to provide storage for more artefacts and hostel-style accommodation for visitors to both the museum and the Jurassic Coast, as the museum and Steve Etches give-away provides a catalyst to attract even more visitors to the area.

## Project details

Project: Fossil Museum

Location: Kimmeridge, near Wareham, Dorset

Cost: £5 million

Client: The Kimmeridge Trust Architect: Kennedy O'Callaghan Structural engineer: AKS Ward

Quantity surveyor: MAC Consulting Landscape architect: Philip Cave

Landscape architect: Finisp Cave

Exhibition design: Event Communications

Contractor: Raymond Brown



### VMZINC for £14 million Pier redevelopment



The roofs in natural VMZINC are the most immediately recognisable feature of phase 1 of the £14.2 million Hastings Pier redevelopment, due to open once again this summer. Described as a national Victorian treasure, it was brought back to life following years of neglect, closure for eight years and a fire which tore through it in 2010. The domed roofs are particularly eye catching, all the more so because of the standing seam natural zinc topped with ornamental finials which spans the covered seating area. Specialist contractor

Roles Broderick Roofing is currently working on phase 2 in which VMZINC PIGMENTO BLUE interlocking panels are being used.

01992 822288 www.vmzinc.co.uk

enq.148

## Taking historic building into 21st Century



Coleg Menai in Bangor provides academic and vocational education and training for over 10,000 students, with a mission to provide modern learning facilities accessible to all. In fulfilling that mission, it has commissioned leading disabled toileting solutions

provider Total Hygiene. The new room features, in addition to standard accessible toilet equipment, two height adjustable washbasins, a ward/ privacy screen, a shower chair and a Clos-o-Mat 'wash and dry' toilet. The combination of equipment ensures transfer from wheelchair to the toilet or shower is as easy as possible. The built-in douche and drier of the Clos-o-Mat means people can use the toilet without having to manually cleanse with toilet tissue.

0161 969 1199 www.clos-o-mat.com

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### The right solution for British Golf Museum



Curtain walling, door and window systems from Metal Technology have been integral in achieving the aesthetic and performance objectives for the redevelopment of the British Golf Museum at St. Andrew's. The stunning views over the course are facilitated through Metal Technology System

4-20Hi+ thermally enhanced casement windows, combined with System 17 high rise, capped curtain walling. The design also features the System 5-20D Hi+ thermally enhanced door and the System 10 commercial door. System 17 Curtain Walling not only provides structural integrity with high levels of thermal and weather performance but offers limitless flexibility in specification.

028 9448 7777 www.metaltechnology.com

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### Sun-X protecting Heritage with blinds



Sunlight, as beautiful as it is, can cause fine fabrics and interiors within Historic houses to fade, sometimes beyond repair. The damage that can be seen after exposure to sunlight is breath-taking, and sadly heart-breaking for owners. It's understandable then why Sun-X's newest product has been in great demand for

these beautiful buildings; preventing sunlight damage from occurring any further. Their clever perforated sunscreen blinds offer flexibility in sunlight control while maintaining a constant view of the world outside. The benefits with UV filtration, heat loss reduction and protection from sun damage is being celebrated by properties within the National Trust portfolio in particular.

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# Y:Cube: Rogers' return to the prefab home

Sir Richard Rogers' innovative offsite housing concept has been held up as a potential solution to the housing crisis, providing compact and affordable flats for sites not normally suitable for development. Stephen Cousins reports

he UK housing crisis, that so dominated the headlines during 2015, has shown few signs of abating as we move into 2016, and younger low-to-middle income workers remain some of the hardest hit.

Average house prices rose by nearly 10 per cent in 2015, compared to a year earlier, according to a report by the Halifax, and in London and the South East graduates and young professionals find themselves increasingly priced out of the property market, forced to either stay at home and live

with parents, house share, or move into expensive private rented accommodation.

The housing development concept Y:Cube, developed by the YMCA in collaboration with award-winning architects Rogers, Stirk, Harbour + Partners (RSHP), project managers Aecom and manufacturer SIG, aims to improve the situation by providing younger workers with an affordable rented stop gap before they join the housing ladder.

Y:Cube is a factory-built construction system, designed for *Continued overleaf...* 





installation on temporary or disused sites, comprising demountable volumetric "cubes" that are stacked together to form blocks of studio apartments.

The first scheme, piloted in the London borough of Merton, comprises 36 units and was handed over in September for a build cost of just £52,000 per apartment, in less than half the time required for the equivalent traditional build.

The development is now 95 per cent let and its success has kick started plans for five new Y:Cube projects on sites in Essex, South West London and on the south coast of England. Schemes for two more sites are expected to be confirmed in the near future.

Each Y:Cube apartment comes complete with its own en-suite bedroom, living room, galley kitchen and, crucially, a front door, giving residents a sense of having their own home.

Ivan Harbour, senior partner at RSH-P, told ADF: "The YMCA's view is that to give an individual two rooms and a bathroom and their own front door is a significant move forward from a room in a house or a hostel. There is a very clear ethos around the concept of it being a non-lifetime home. The constraints of building lifetime homes in London and the South East have had a major effect on peoples' ability to get into housing and then progressing up the housing ladder."

The cost-saving in construction has enabled Merton Council to rent out units for as little as £148 per week, or just

65 per cent of the average market rate, well below the 80 per cent model applied to most affordable housing. This makes them suitable for younger people on low-to-middle-income, frequently those in hostel accommodation or council housing lists who have little chance of going into social housing, says YMCA.

The units operate on short-term leases, of between three and five years, giving occupants time to skill up and save for a deposit towards their own home.

#### Back to Flat-Pack

Y:Cube is Sir Richard Rogers' third foray into the realm of the prefab. His Zip-Up House, built in 1968, conveyed a futuristic vision of a pink modular home raised up on on stilts. Then, in 2007, his practice made its first move into mass produced housing with the Oxley Woods estate in Milton Keynes. The series of brightly clad, energy efficient angular terraces was initially showered with plaudits, winning the 2008 Manser medal for the best new house or housing. But, the scheme subsequently suffered problems when water seeped through cladding panels and windows, resulting in legal claims.

Is Rogers' third attempt to sidestep the mud and mess of traditional house building his most mature and technically accomplished?

Ivan Harbour certainly thinks so: "There have been many ideas in the industry around building offsite in modular complete units, which tend to be defined and constrained by







'Each Y:Cube apartment comes complete with its own en-suite bedroom, living room, galley kitchen and, crucially, a front door, giving residents a sense of having their own home'





the construction technology ...What we have with Y:Cube is a much more straightforward technology, comprising an engineered timber structure, built into panels and assembled volumetrically in a factory, whose simplicity and lightness make it very easy to move around."

On the Merton scheme, each apartment was built under controlled conditions in a factory in Derbyshire, complete with installed services, internal and external finishes and insulation, then craned into position on site. This increased precision and quality (homes are very airtight and energy efficient) minimised waste and resulted in a construction cost of around £1,400 per sq m, compared to the typical £2,000 for local authority new builds.

The units are "plug and play" and can be fixed together in almost any configuration, up to three storeys high. Each is fully demountable, a feature designed to prompt councils to change they way they think about land and bring into use sites that might otherwise have remained dormant.

Harbour comments: "One of issues in the South East is land cost and Y:Cube enables you to install units on brownfield land, land earmarked for future regeneration, or where there's a temporary situation where land is lying idle. Schemes can be sited on such land for a period and then redeployed somewhere else in the future. It could become part of a whole concept of regeneration of ownership that has been missing up to now."

#### Micro Living

One compromise resulting from reduced construction cost is limited space: each self-contained one-bed apartment measures just 26 sq m in size, significantly below the 37 sq m minimum permitted for single person dwelling under the Greater London Authority Housing Design Guide. The reduced size was made possible because Y:Cube is classified as temporary accommodation and therefore falls outside of the normal rules.

The YMCA claims this is size is a 'small' sacrifice to make for its targeted renters, many of whom live in hostel accommodation or are on waiting lists for social housing and would relish the chance of getting to live in a property with its own bathroom and front door.

This view is supported by recent research, published by property consultancy Knight Frank, showing that first-time buyers in London are increasingly ready to sacrifice space for a home near their workplace. Its 2014 study found that 45 per cent of 18-to-24-year-olds and 37 per cent of 35-to-44-year-olds would consider living in a small studio flat of around 27 sq m if it was in a central location.

Since it opened in September, the flagship scheme in Merton has attracted significant interest. Capacity studies are now underway for the five new projects, in Essex, South West London and the south coast of England, ranging

\*\*Continued overleaf...\*









'If it takes off,Y:Cube could play a key role in tackling the housing crisis, opening up new sites for development and providing a stop gap for people wanting a home but struggling to come up with a deposit'

in size from 15 to 36 apartments. The studies will present a detailed business plan for each of the proposed sites, including most of the information required to develop a pre-planning application.

If they go forward, the projects will be delivered by The Y:Cube Venture, a new joint venture set up by the YMCA London South West, RSHP, Aecom and SIG to provide a consolidated design and delivery service for Y:Cube developments.

#### Y:Cube II

The five new schemes will incorporate the second generation of RSHP's Y:Cube design, featuring new technologies developed to reduce the cost of construction and maximize space. Each demountable unit will integrated gangways and balconies, developed to reduce the build programme below the 5 ¾ months for the first Y:Cube development.

Other modifications being considered include larger bathrooms and more floor-to-ceiling storage.

"Build costs at Merton were just over £52,000 per flat; we're aiming to reduce that to sub £50,000," said Simon Tanner, head of Y-Cube Development at YMCA London South West. "If we are building more and running more units through the factory production line, economies of scale should bring down costs further."

The schemes might include the first example of Y:Space, a large prefabricated demountable block built using the same method of offsite volumetric construction and intended for use as either a community or youth centre.

Meanwhile, the JV is developing the brand to include Y:Home units, two- and three-bed Y:Cube units designed for couples and families. "This would pursue the same model, aiming for high quality design and affordability, but how affordable they are will depend on where the market is when we launch," said Tanner, who adds that the venture is in the process of applying for revolving Greater London Authority funding, which could make schemes even more affordable.

If it takes off, Y:Cube could play a key role in tackling the housing crisis, opening up new sites for development and providing a stop gap for people wanting a home but struggling to come up with a deposit. Given that 53 per cent of private tenants are finding it hard to pay their rent, according to a recent YouGov poll, it could also become an attractive alternative to rented accommodation. In other words, the numbers could be "stacking" up in its favour.



#### Accessible guidance



'Design Guidance & Considerations for a Domestic Accessible Toilet/Wetroom' has been produced and published by Clos-o-Mat. The white paper gives advice to ensure that all aspects affecting the functionality and practicality of a bathroom, wetroom and toilet, as occupier needs change, are considered. Robin Tuffley,

Clos-o-Mat marketing manager said: "Our white paper covers all the details to think about to ensure a successful adaptation, which meets the user's needs and so achieves best value for the provider." The white paper can be downloaded free of charge at www.clos-o-mat.com/index.php/downloadpage/white-papers.html.

0161 969 1199 www.clos-o-mat.com

enq.153

#### Architects Datafile website



www.architectsdatafile.co.uk

The Architects Datafile (ADF) website is an online provider of past and present products and news items for the architect or specifier. architectsdatafile.co.uk is a one-stop source for all the latest press releases providing any visitor with access to information about products and services that they may require. From the website, you can find links to digital issues that have live links to advertisers' sites, as well as daily email alerts to keep you as informed as possible.

#### Local authority reduces boiler breakdowns with Sentinel's SystemCare



Since adopting SystemCare, Sentinel's water treatment programme for specifiers, a major City Council has drastically reduced boiler breakdowns and boiler-related problems at more than 14,000 properties within its boundaries. The SystemCare schedule of chemical cleaners, corrosion and scale inhibitors, and test kits – in tandem with bespoke training – has proven a real success since it was first taken up by the local authority in 2006. SystemCare truly encompasses the 'Sentinel System', a three-step programme of clean (to prepare for better performance), protect (to prolong system life and efficiency) and maintain (to ensure durable protection) for best practice treatment of heating and hot water systems and unrivalled protection across its lifetime. A key component of SystemCare is testing water quality and inhibitor levels in order to confirm that a system has been correctly treated. In the City Council's case, testing was especially important as it had helped the council successfully negotiate extended warranties with its preferred boiler suppliers. These extended periods of guarantee are dependent upon a planned programme of water treatment, in this instance as delivered by Sentinel's SystemCare. All major boiler manufacturers endorse and recommend Sentinel products in their boiler installation manuals as they understand that systems treated correctly with high quality products rarely give rise to problems.

# Permeably green

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www.grasscrete.com



# The extremes of architecture to come under the spotlight at Ecobuild 2016



A broad spectrum of bold expert analysis and best practice relating to all aspects of the architectural industry – from the burning issues of today to beyond – will be examined at Ecobuild, the UK's largest show dedicated to construction and energy



he show will provide architects and specifiers with access to the very latest, invaluable industry insights, trends and projections relating to all aspects of the profession through a mix of a high-level conference, CPD-accredited learning hubs and more than 800 exhibitors showcasing a wide range of new products, materials, solutions and services.

Day two of Ecobuild 2016 is the show's dedicated Architecture Day and features a unique opportunity to look at the changing role of the architect, the importance of architecture across the built environment and the need for change. Visitors will also get the chance to rub shoulders with

industry experts and the biggest architectural practices in the UK, and examine some of the most interesting and innovative projects and products that are pushing boundaries and driving the industry forward.

Ecobuild and architecture go hand in hand. 96 per cent of the top UK architectural practices as listed in BD's annual Top 100, 84 per cent of the top housebuilders and contractors attended the show in 2015 and 88 per cent of architects who visited last year's show rate attendance at Ecobuild as essential to their business.

Attracting more than  $40,\!000$  industry professionals from across the whole supply chain each year, Ecobuild is the leading

Continued overleaf...

#### Look out for



TT Pumps (stand E3260) is a leader in the design, manufacture, supply and installation of pumps, controls, valves, environmental products and systems. TT will showcase its range of above and below ground pumping stations, alongside its clean water booster sets and associated valves.

enq.156



Morsø (stand E3130b) has been a leader in quality, design and innovation – manufacturing cast iron solid fuel stoves. Morsø's cast iron products fuse tradition with contemporary design, and it is this discerning ability to produce eye-catching designs that reflect modern trends that makes them so popular.

enq.157



The National
Federation of Roofing
Contractors' (stand
E5053) Roofing
Pavilion will be returning to Ecobuild. The
Pavilion is the ideal
opportunity for visitors
to see a selection of
NFRC Supplier
Members exhibiting
their latest roofing
products, as well as
finding out more about
services on offer.



exhibition and conference for the UK construction and energy market. The 2016 event will see an evolved proposition for the event to focus on areas of industry growth and market priorities such as housing, infrastructure, next generation innovation, technology and people.

#### Building on the moon

The backbone of Ecobuild's Architecture Day is provided by a provocative and controversial conference programme that sets the direction for the industry, illustrating the importance of design, the diversity of modern design and the extremes of architecture. From the role of architecture in world class infrastructure projects, to the need for more legislation to bring out the best in design to how to build on the moon and address the skills gap.

Chaired by BBC Arts Editor Will Gompertz, speakers include Sadie Morgan, Founder of dRMM and chair of the HS2 Design Panel, Simon Allford of Sterling Prize winners AHMM, Xavier de Kestelier of Foster & Partners, and writer, journalist, essayist and film-maker, Jonathan Meades.

Xavier de Kestelier gives one of the day's more controversial presentations by exploring the horizons of combining science, engineering and architecture to enable building on the moon. Not so much a presentation advocating development on the swathes of land on the moon, rather an exploration of how we could build more efficiently and resourcefully in keeping with existing terrain.

The architectural infrastructure of the UK's revolutionary HS2 rail link will feature in a presentation by Sadie Morgan. She commented: "Ecobuild is the perfect place to discuss the importance of architecture in world class infrastructure

projects. We will discuss how to apply an architect's focus on good design to major infrastructure projects – perfectly reflecting the events synergy between the two disciplines."

#### Acknowledging architecture's innovators

Ecobuild's Architecture Day will be brought to a close by the globally-renowned BD Architect of the Year Awards, with the winners across 13 closely-contested categories announced.

All shortlisted entries will be on display at Ecobuild's DISCOVER bar throughout the show, giving visitors the opportunity to cast their eye over the very best projects completed by the very best practices operating across the UK.

The DISCOVER bar itself will be of architectural interest, with students from the Bartlett School of Architecture challenged to design the social venue as part of an Ecobuild competition organised in conjunction with sponsor Medite-SmartPly.

#### Ecobuild's essential educational offering

Ecobuild 2016 will feature six CPD-accredited learning hubs; Building Performance, Design, Energy, Build circular, Infrastructure Revolution and Digital Building. A highly-provoking seminar programme, it will provide visitors and exhibitors with the know-how to do their jobs better and the business case to help them make more informed decisions to address these challenges.

The programme will be delivered by industry leading figures and organisations including Architype, Glenn Howells Architects, Marks & Spencer, British Land, Jones Lang LaSalle, BRE, Zero Carbon Hub and Willmott Dixon Energy Services.

Continued on page 46...



# ON THE PLUS SIDE.

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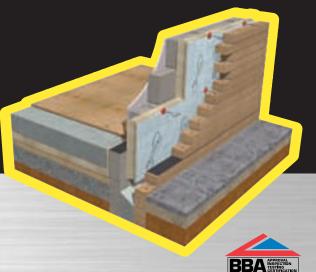
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ecobuild stand no E2070

reader enquiry

159

INSULATION EXCELLENCE

#### Housing and Next Generation

Ecobuild 2016 will focus on two further streams either side of the Architecture Day. The first day looks at Homes, exploring the most pressing, divisive and important decisions that the industry must take to deliver comfortable, sustainable, resilient places and homes. What do new-build and retrofitted homes and communities need to deliver, and at what cost?

Day three is devoted to Next Generation and looks at how smart technology, changing demographics and wellness will drive design and construction in the future as well as how we will address the skills gap and attract young talent to the industry.

These streams are supported by a number of initiatives, including SMART @ Ecobuild, an area dedicated to exploring how smart technology is forging an ever-closer and advantageous relationship between people and the environments we inhabit.

Driven by ever-increasing demand – with the global market for smart building technologies forecast to triple to £14 billion by 2019 - SMART @ Ecobuild places the latest technological advances in the hands of visitors.

The shortlist for Ecobuild's Big Innovation Pitch 2016, an initiative in partnership with Marks & Spencer to unearth innovation across the design, construction and energy sectors will be on display at the DISCOVER bar.

Each of the 15 shortlisted entries has been validated by a panel of judges and is vying for the opportunity to win a contract with M&S and roll their product/solution out in stores across the UK.

Just five finalists from this group will be invited to make a final pitch to the judges, including Chris Marney, Head of Engineering and Energy at M&S, in a special conference session hosted by Rachel Riley from the Gadget Show and Countdown on day three of the conference, before the overall winner is announced.

Reflecting the construction industry, Ecobuild is constantly evolving; ensuring that it continues to provide relevant, dynamic content and create opportunities to make new connections.

Architects will find a wealth of specialist support and solutions - and much more besides - at Ecobuild 2016.

Ecobuild is on 8-10 March at Excel London. To find out more please visit:

www.ecobuild.co.uk

#### More to look out for...

Daily waste water from showering, cleaning and



spillages requires a simple but durable drainage system. Aspen lightweight drainage from Canal Engineering (stand E6135) can be easily maintained for cleaning out the channel of unwanted waste build-up. The stainless steel construction provides corrosion, rust, stain and chemical resistance for a continuous showroom appearance.

Join Q-railing (stand E2114) for the launch of the brand new system for



For over 30 years Glatthaar-Fertigkeller (stand E3074) has specialised in



basement construction including design, calculations, off-site manufacturing, on-site building and many other additional services. Glatthaar is the only company in England that delivers a basement system and not just components for basement construction.

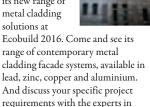
Lewis Deck is a self-supporting, light gauge galvanised steel reinforcement sheet used for



shuttering and reinforcing concrete or screed floors of limited thickness. Used in composite floor construction it provides a first class solution for acoustics, fire protection and works very well with under-floor heating systems. Visit CDI (stand E1074) for more.

The Electric Boilers Company (stand N6152) together with Fiamma have created an innovative solution for providing central heating and hot water. Elektra Boilers guarantee saving consumers the time and hassle that gas boilers normally entail by eliminating carbon monoxide, condensate, servicing and the need for gas safe certificates. Installation packages are also available upon request.

Midland Lead Construction (stand E6051)is proud to present its new range of metal cladding solutions at



metals for construction.



of expertly developed eco friendly acoustic solutions for a wide range of architectural applications. The contemporary company was founded in 2015 and has already made a significant impact on clients with its range of sustainable products. SoundSpace Solutions prides itself on its innovative and ecologically friendly approach to business.



popular: The Cantilever Staircase. A staircase that needs no support underneath or between the treads, has created a vision of open space that is very aesthetically pleasing. CANAL Architectural (stand E6140) use different fixing methods for this staircase making it suitable for all properties, new or existing.



#### in f 💟 You Tube

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Modern, minimalist first class design provides maximum transparency with outstanding safety. Easy Glass®, Q-railing's glass balustrade systems, are fully modular enabling components to be interchanged in endless combinations. Installation is simple and fast.

A total of more than 130 metres of Q-railing Easy Glass® Slim and 3kN were installed throughout the recently refurbished Stourbridge Campus, part of the Birmingham Metropolitan College, including balustrade and staircases. For further information, to request a visit or to arrange a CPD presentation, please call: 01782 711 676 / 0800 781 4245 or email to sales.uk@q-railing.com.



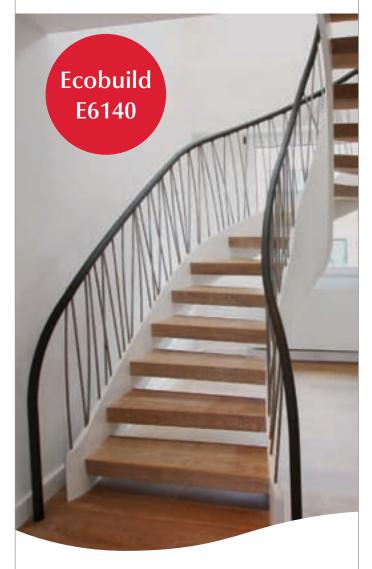


ecobuild stand no E2114





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#### Vastern Timber unveils Brimstone at Ecobuild



Vastern Timber will be exhibiting at Ecobuild and will be unveiling Brimstone, the first commercially available thermally modified British timber. Sourced exclusively from English and Welsh woodlands, the Brimstone range is ideal for cladding, decking, external joinery and furniture, and includes thermally

modified ash, sycamore and poplar. During the thermal modification process the timber is super-heated to temperatures between 160° and 210°. The combination of high heat and steam reconfigures the wood to deliver a material of exceptional stability, durability and aesthetic uniformity that is highly resistant to mould and fungus. To view the new Brimstone range, visit Vastern Timber on stand E3161.

0800 135 7013 www.vastern.co.uk

eng.170

#### SALUS spearheads smart home technology



SALUS – an industry leader in innovative heating control solutions – returns to Ecobuild with a vengeance this year, as it spearheads smart home technology in the UK. As well as showcasing a comprehensive

line-up of its popular heating controls, including the revolutionary iT500 smart control, SALUS will be unveiling a new 'Smart Home' range of connected products that will enable homeowners to run their home simply from their phone. Products from the Smart Home range that are expected to be on show include a universal gateway, smart plugs, an electric monitor and door/window sensors. The range will also feature a new iT530 thermostat, smoke Alarm,  $CO_2$  alarm, camera, smart switch and smart button.

#### EnviroVent set for new releases at Ecobuild



EnviroVent, one of the UK's leading manufacturers of sustainable ventilation systems, will be launching its exciting new energiSava 200 heat recovery product at Ecobuild. The new energiSava 200 offers a neat and innovative solution for housebuilders to meet System 4 of Building Regulations Part F requirements. It is a high performance heat recovery unit that delivers up to 90 per cent thermal efficiency. The company will also be show-

casing its innovative new Aug Vent app, which uses Augmented Reality to enable an interior designer or specifier to clearly visualise what an extract fan would look like in the home. For more information on improving the air quality in your home, find your local EnviroVent Specialist Ventilation Advisor.

#### LABC Warranty



Are you selling new homes or building your dream home? Make sure it has the warranty cover it deserves. All of LABC's warranties are backed by 'A' rated insurers and accepted by leading lenders, giving you added protection and peace of mind. Its warranties don't just provide protection for newly built homes, they

ensure quality throughout the build. LABC work with you to resolve any issues early to avoid unnecessary delays to your build. The company would love to talk about how it can help on your project. Visit LABC Warranty on stand E2000.

0845 054 0505 www.labcwarranty.co.uk

eng.608



enq.173



ena.174

### The possibilities are endless with TEC UK

#### Thermal Wheel

Rotary heat exchangers are an example of regenerative energy recovery systems. They are used for ventilation and air-conditioning (e.g. for residential buildings, offices, manufacturing facilities, cruise ships) and also in process air systems – namely, wherever it is possible and appropriate to recover heat energy, for example in waste incineration facilities and in food, pharmaceuticals, paper and ceramics industries. The possibilities are practically endless.

Depending on their design and on the coating of the storage mass, however, rotary heat exchangers can also be used for space drying and humidifying and to transfer sensible and latent heat.



#### PWT – Crossflow Plate Heat Exchanger

The cross-flow plate heat exchangers (PWT) from Klingenburg are dimensionally stable and exceptionally impermeable and tough. Available in aluminium, epoxy-coated aluminium or stainless steel as required.



Ideal for use in industry, in ventilation and extraction systems, for adiabatic cooling and for cooling electrical cabinets.

Our cross-flow exchangers are available as individual units with edge lengths from just 200

to 1,200mm. Combined as modules, there is practically no limit.

Suitable for air temperatures up to 300°C, important in the textile and film industries, detergent and PVC production and sewage-sludge drying.

Plate exchangers are often built into systems in which air circulation is unwanted. The internal and external air flows must therefore be completely separated.

Even the slightest gaps or nooks have to be eliminated. Maximum impermeability is thus called for – and the plate heat exchangers deliver. Larger models with edge lengths of 500 mm or more and potentially exposed to particularly high pressures are double-folded at the inflow edges, which gives them exceptional sealing. The double fold gives the edges five times the strength of the construction material, lending the plate exchanger outstanding stability, however high the air pressure.

#### GS – Counterflow Plate Heat Exchanger

In efficiency terms these are world champions Klingenburg Counterflow Plate Heat Exchangers recover up to 90 per cent (by rigorous calculations) of existing room heat or cold. This makes them perfect for any ventilation system – from small apartments to office complexes, farm stables to swimming pools and refrigerated stores to warehouses. The possibilities are practically endless.

Broadly speaking, counterflow exchangers are used wherever a circulation of air is undesirable. Since in this design the airstreams are wholly separated. TEC UK offer ten standard sizes of counterflow exchangers in aluminium – the widest range around.

From the hand-sized GS 16 for the smallest spaces and shallow suspended ceilings to the generously proportioned GS 110.

These two units also happen to be the smallest

and largest Counterflow Plate Heat Exchangers currently available in the world. Width is selectable on all models and all are naturally available with a bypass. Under circumstances where the air has a corrosive impact on the exchanger material, such as in swimming pools, the Klingenburg counterflow units are available in epoxy-coated versions. For those who prefer plastic counterflow exchangers, TEC UK have the perfect solution.

With Klingenburg's usual high quality, of course.

#### CERTO - Humidifier

The CERTO is available as a complete unit with housing. Or alternatively as an element that can be installed in air-conditioners of any manufacturer. Ideal, therefore, as a retrofit or for upgrading existing systems.

The 'standard' dimensions are those you specify. and the company can supply the CERTO either assembled or in parts.

The insulated housing features a study frame construction and is made from seawater-resistant aluminium, with internal panelling in stainless steel.

The standard version of this high-pressure Klingenburg humidifier includes an inspection door, sight glass and 24-volt interior lighting.

The CERTO tolerates even high wind speeds with no loss of performance. Pressure loss is minimal and energy consumption is low.

This Klingenburg humidifier is also ideally suited for room air-conditioning through evaporation (adiabatic cooling). TEC UK design your humidifier precisely to achieve constant 100 per cent moisture saturation for the room and air volumes present in your building.

Its outstanding performance makes the CERTO the ideal humidifier for drying and cooling (DEC) systems. Another energy-saving Klingenburg product.

01460 247111 www.tecukltd.co.uk

ecobuild stand no E3207







### Innovation at Ecobuild – BioSOLAR



eciding between a green roof and photovoltaics (PV) has been a question faced by many industry professionals over recent years when designing a flat roof; however these two technologies are no longer mutually exclusive options with the introduction of Bauder BioSOLAR, which will be officially launched at this year's Ecobuild.

A biosolar roof is the successful combination of biodiverse and extensive green roofs with photovoltaic systems, delivering a duality of technologies for environmental advantage and increased profitability for your client or building owner.

Although designed primarily for new build applications where this synergy of solutions is often required to meet planning and BREEAM requirements; the biosolar system can also be retrofitted on many existing roofs without the need for any structural modification to the building.

Bauder was the first company to introduce green roofs to the UK over 30 years ago. The Bauder BioSOLAR system uses the substrate and vegetation to provide the ballasted installation mechanism, removing the need to penetrate the waterproofing to secure the mounting units to the roof and simultaneously makes the most of the available area for vegetation, enabling the entire roof to qualify as a biodiverse green roof.

A key feature of Bauder's unique system is that the front edge of the polycrystalline PV panel is raised 300mm above the finished green roof level, allowing light and moisture to reach beneath the panels while ensuring the mature vegetation will not shade the panels and can be easily maintained. The BioSOLAR solution also delivers advantages

to the building, as the cooling effect of the vegetation and water held within the green roof system preserves the ambient temperature around the PV array, which in turn increases the solar output by over 5 per cent.

Bauder BioSOLAR will be officially launched to the widespread construction industry in March at Ecobuild 2016. BauderSOLAR Product Manager Tom Raftery will be in attendance and is set to deliver an exclusive new seminar on how biosolar roofs can help you meet BREEAM targets, planning conditions and the Merton rule (Wednesday 09 March 1:30pm-2pm at Specifier Live). This discussion will also cover the biosolar design and installation pitfalls to beware of and how to avoid them to ensure your warranty is sound and not fragmented to safeguard your client. Tom and the rest of the Bauder team will be available to answer any technical questions that you may have about current or future projects on Stand E4090, so be sure to visit.

0845 271 8800 www.bauder.co.uk

enq.177

#### Schöck's new generation thermal breaks



Schöck is featuring two new generations of thermal break units – for balcony and parapet applications – on Stand E3060 at Ecobuild. The latest Isokorb type KXT has 25 per cent improved thermal insulation over the previous generation and is assessed as a Certified Passive

House Component. Another new development is the Isokorb type AXT, which offers a cost-effective and more thermally efficient method of insulating parapets. Crucially there is no wrapping required, so it enables greater freedom of design. The tried and trusted Isokorb types KS and KST; the new BIM database; a Thermal Bridging Calculator; and other digital service also feature.

01865 290 890 www.schoeck.co.uk

enq.178

#### Synseal will focus on innovation at Ecobuild



Synseal will be exhibiting for a fourth year in succession at this year's Ecobuild. Building on the success of its focused presence at previous Ecobuild shows, Synseal's stand will seek to demonstrate the sheer diversity of Synseal group window and door product solutions with a focus on true innovation. Stand E2006 will feature the new Celsius Solid Roof, a truly warm and quick

fitting roofing solution for new build and retrofit projects, alongside the popular WarmCore "warm aluminium" folding sliding door which delivers low U-values of  $1.4~\rm W/m^2 K$  using 28mm double glass or  $1.0~\rm W/m^2 K$  using 44mm triple glass. Also on display will be a Masterdor Precision "wrapped timber" residential door.

01623 443200 www.synseal.com

enq.179

#### Hochiki Europe builds on success at Ecobuild



Hochiki Europe will be on stand E6096 at Ecobuild 2016, exhibiting its innovative FIREscape emergency lighting system. As a leading manufacturer of fire safety solutions the company will be providing visitors with the opportunity to discuss the latest building and life safety issues and product improvements within the fire detection sector. Ecobuild delegates will also have the opportunity to learn more about Hochiki Europe's core fire detection systems. Building designers, architects or specifiers attending Ecobuild can also find out about Hochiki's new range of BIM content, which is based on a selection of its core fire detection and emergency lighting products. As well as investing in its own products and services, Hochiki Europe is leading several campaigns to improve general best practice within the built environment. The latest of which revealed that over half (56 per cent) of European businesses are risking the safety of building occupants by failing to adjust security systems in accordance with change in use of space. Hochiki's report following an extensive survey of its UK and European customer base suggested that thousands of businesses around the continent are investing in office fit-outs and refurbishments without properly altering their fire and lighting safety systems.

01634 260133 www.hochikieurope.com

# DISCOVER

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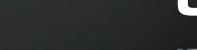
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### Visit Marshalls Natural Stone at Ecobuild

arshalls is pleased to announce that their Natural Stone division will take centre stage at Ecobuild this year, running at the ExCel centre, London between 8 and 10 March.

For the first time Marshalls will focusing purely on its range of natural stone products and services, demonstrating to visitors their Industry-leading approach to best practice manufacture and enviable global supply chain, and how Marshalls adds value to its customers across the entire specification process.

Marshalls is the UK's leading supplier of hard landscaping materials, focusing on developing products which help architects, local authorities and contractors to create better spaces, whether it's street furniture, natural stone, concrete block paving, water management or protective street furniture products.

On the stand will be a number of natural stone products including Marshalls' range of indigenous Yorkstone, Cambrian Sandstones and the innovative Stonespar collection.



Visitors will also be able to pick up a copy of the brand new Marshalls Natural Stone brochure which offers inspiration through colour and texture, real life case studies and demonstrates the full breadth of the Marshalls natural stone range.

Dave Stanger, Marshalls Natural Stone National Commercial Manager, said: "Ecobuild is the ideal place for us to launch our fantastic new Natural Stone Brochure and to share the message about how we work with customers to find the best products and provide project specific tailor-made solutions.

"At Marshalls we have over a Century of experience in the supply of natural stone and we understand this product better than anyone else in the market. We can add value to our customers across the specification process, from concept and design, bespoke manufacture, to on-site support and engineering expertise. Come and see us at Stand E5200 to speak to one of our experts."

"We're also proud to have one of our stone experts, Gordon Hines, speaking at the Specifier Live Theatre on Thursday at 2.30pm on themes around best practice in stone specification."

01422 312000 www.marshalls.co.uk

ecobuild stand no E5200

enq.182



### A sustainable approach from Kemper System at Ecobuild

iquid waterproofing specialist, Kemper System, will be showcasing its comprehensive range of BBA-certified Kemperol liquid roofing and waterproofing systems on stand E5090 at this year's Ecobuild Show, along with its Stratex warm roof system.

The only cost effective, solvent-free and completely odourless cold liquid applied waterproofing system available in the UK, Kemperol 2K-PUR will take centre stage on Kemper System's stand.

Around 80 per cent of the applied polyols (or resins) in Kemperol 2K-PUR are obtained from the seeds of the tropical castor plant (Ricinus communis) a renewable resource. Perfect for use on sustainable construction projects and ideal for live projects on occupied buildings, such as schools, hospitals, food factories or office buildings, Kemperol 2K-PUR allows work to take place without the need for evacuation or closure, avoiding the disruption associated with the strong odours and fumes from many 'low-odour' or solvent-based products.

Stratex from Kemper System will also be on show. An integrated warm roof that offers exceptional performance, Stratex is supplied as a complete system of matched components - vapour barrier, insulation and waterproofing. It is equally suited to concrete, timber and metal decks on new build projects as it is to refurbishing and upgrading existing roofs. Stratex is also ideal as a complete warm roof solution below an extensive green roof. It can be supplied as flat board or as a fully specified tapered insulation scheme.

Comments UK marketing manager of Kemper System, Stuart Hicks: "Our product range is designed primarily for use in commercial refurbishment, maintenance and new build projects. Kemper System's waterproofing and surfacing products have protected billions of

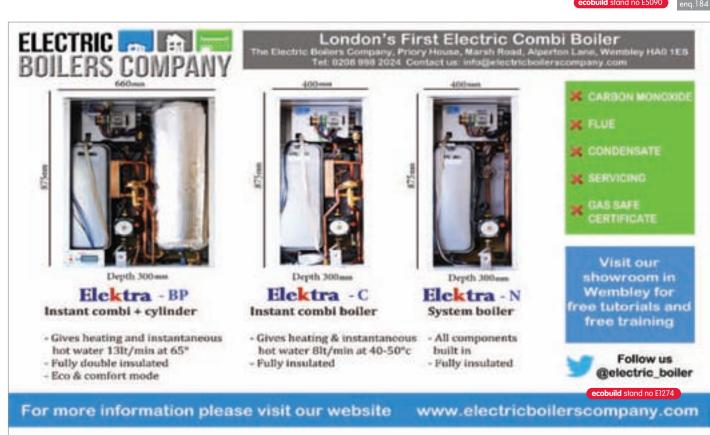


square metres of roofs around the world over the past 50 years, including some of the world's most important landmarks, iconic buildings, public and commercial properties.

"As we continue to prioritise environmental performance in the built environment of the future, Kemper System's advanced roofing technology can make roofs greener and more sustainable. A visit to our stand will give you the knowledge you need to specify liquid roofing and waterproofing systems with complete confidence."

019 254 45532 www.kempersystem.co.uk

ecobuild stand no E5090



ecobuild stand no E2152

### Selectaglaze: Helping projects achieve BREEAM ratings

The volume of energy wasted, and the thermally efficiency of our buildings have become key topics on an environmental and financial level. Our buildings account for more than 40 per cent of all carbon emissions, therefore the need to design ways to reduce our 'footprints' has become an important concern.

Selectaglaze secondary glazing systems using low emissivity glass can reduce heat loss by more than half across the window and achieve a U-value of around 1.9. With sealed unit glazing this is further reduced, and a figure as low as 1.3 is achievable.

When there is a requirement for airtightness, secondary glazing can provide substantial improvements, especially when changing the original draughty windows is not possible. This is generally when a building is Listed or sits within a Conservation area. Air permeability performance below 5m3/h.m3 is readily achieved with Selectaglaze sliding systems and below 1m<sup>3</sup>/h.m<sup>3</sup> with Selectaglaze hinged systems.

Secondary glazing is an independent window fitted to the room side of a building, and is a subtle and fully reversible adaptation, making it widely accepted by most Heritage bodies. All of Selectaglaze's units are custom-made to each window and using high performance seals ensure the tightest fit, reducing air infiltration and virtually eradicating drafts.

Selectaglaze secondary glazing has been used on buildings across different sectors, from Listed offices to new build hotels, helping projects achieve high BREEAM ratings. Selectaglaze has worked on projects such as Wiltshire Town Hall and Ham Yard Hotel which have both achieved a BREEAM "Excellent" rating and Albany House and Mortimer Street apartments have received a BREEAM "Very Good".

The Selectaglaze range is extensively tested and



offers designs to suit all buildings across all sectors. Selectaglaze Technical Advisors will be at Ecobuild to offer technical advice on the benefits of secondary glazing. Visit them on stand E2152.

01727 837271 www.selectaglaze.co.uk.

#### Thermaset to widen customer base at Ecobuild



A leading powder coatings company, Thermaset Limited, is exhibiting for the first time at Ecobuild (Stand E6090) as part of a major sales push planned throughout 2016. The company has just launched a new suite of individual A4 size product specification brochures for its Spectra range and Ripple Finishes,

a description of its Hygienic Antibacterial powder coatings and a Stock Range brochure. Thermaset, which has Qualicoat Accreditation, is working towards the international standard ISO 14001 Certification, and is therefore putting environmental management at the heart of its business. The company provides technical advice on selecting the most suitable product for a given application.

01827 55777 www.thermaset.co.uk

#### Raising the bar with windows at Ecobuild



New, Innovative, window types and a wider range of timber finishes are all on display, on Uniform Architectural's stand E3200. A wealth of truly original ideas and benefits to meet Architect's and client's requirements are the central theme of the company's stand for 2016. Slender profiles,

invisible corner joints, face drainage, trickle vents, hinges, handles, etc, make the uni\_one® Timber/Aluminium Composite Window, one of the best designed and thus, increasingly popular in London and beyond. Every imaginable opening type and the smoothest of Patio gliders are all awaiting your inspection!

01275 217227 www.uniform-arch.co.uk

#### iDecking EasyClick and the new M-Tray® modular green roof system is launching at Ecobuild



iDecking EasyClick is the revolutionary decking system. Installation couldn't be easier. Everything is pre-measured and assembled. No screws, no fixings and no timber joists are required, just stamp down on the boards with your foot. EasyClick uses the innovative, eco-friendly DURO Excellence composite, made from recycled rice husks. Wallbarn will be demonstrating installation of the EasyClick system on their stand throughout Ecobuild. For more information visit idecking-uk.com.

M-Tray\* by Wallbarn is the latest development in modular green roof technology. It is designed to make sedum roofs easier to install with a more luxurious finish. Benefits include: deeper cavities for extra root growth; optimum drainage; stronger plant growth; easier to carry; closer connection between trays; more seamless plant growth; no sharp edges; nothing spills out, less mess; made from recycled material and UK designed and manufactured \*.

\* M-Tray\* is subject to Community Registered Design (No. 002953943-0001) & US Design (Application No. 29/553,129).

0208 916 2222 www.wallbarn.com

# Hueck to launch new window and door suites at Ecobuild

leading manufacturer of aluminium building systems, Hueck UK, is showcasing two new products at the 2016 Ecobuild exhibition in London. The new Lambda WS 075 and DS 075 window and door suites are highlighting Hueck's commitment to constant innovation, and will help architects and specifiers in the UK achieve greater design flexibility while remaining within a project's budget.

Windows and doors utilising the new profile systems are even easier and quicker to manufacture, translating into more economical solutions that won't compromise on energy efficiency, durability, and performance. Like all Hueck systems, the new WS 075 and DS 075 window & door suites are highly insulated, with Uf-values as low as 0,86 W/m²K and 1,3 W/ m²K respectively. The door suite can easily accommodate larger glass panes of up to 1,500mm width and 3,100mm height, with

a maximum leaf weight of 250kg.

"Visitors to our Ecobuild stand will be able to see the two latest additions to our comprehensive Lambda range of window and door systems," said Leon Friend, Hueck UK project development director. "The new suites feature our optimised 'Lambdatherm' insulation concept that utilises innovative composite materials. The insulating bridges also allow for an easier installation of the window and door hardware, making the fabrication process faster, with economic benefits to be enjoyed down the line."

Hueck is exhibiting at Ecobuild on stand E4046, located within the CAB (Council for Aluminium in Building) pavilion. "We offer an extensive range of window, door and facade systems and I'd like to take this opportunity to invite visitors at the show to stop by our stand and find out more about our company and products," said Leon. "Hueck is a building envelope specialist



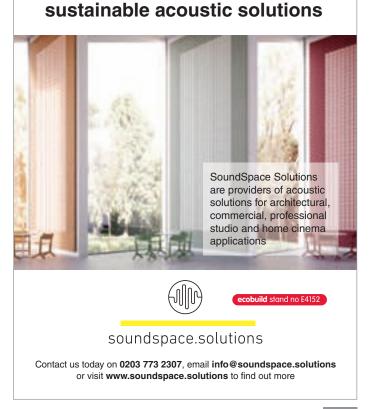
with 200 years' engineering experience and, aside from our extensive range of standard systems, we offer project-specific solutions, and bespoke design services. Whether you are an architect/specifier, developer, contactor or fabricator, our team is looking forward to meeting you on stand E4046 to discuss your project, and potential collaboration," added Leon.

01217671344 www.hueck.com

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cobuild stand no F4046







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#### Ancon to launch new products at Ecobuild



Double winner of the Queen's Award for Enterprise, Ancon Building Products, continues to expand its range of high integrity structural fixings and will exhibit a number of new products at Ecobuild. Ancon will showcase its latest fixing innovations, suitable for new-build construction including low-energy residential developments.

Products on show will include the lightweight Nexus® brick faced soffit system, a number of insulated balcony connectors and an exciting new development within the Teplo range of low thermal conductivity wall ties. Further reflecting the sustainability theme of the exhibition, Ancon will also be focusing on ways of helping building designers to meet their thermal performance aspirations.

0114 275 5224 www.ancon.co.uk

#### Flowcrete showcases green screeds at Ecobuild



On stand E6040 of Ecobuild, Flowcrete UK will be demonstrating why its range of high performance resin floor finishes and sub floor screeds have been utilised by some of the nation's most high-profile developments. Fast drying Isocrete Alpha Screed and

the way it is applied have both been designed to allow for large quantities of screed to be installed en-masse, with multiple, large pours capable of being undertaken over a short period of time. Yet this solution is one of the greenest screeds on the market thanks to the fact that 95 per cent of the alpha hemi-hydrate calcium sulphate binder used in the Isocrete Alpha Screed system is reclaimed from an industrial by-product, reducing the amount of environmentally harmful waste.

01270 753000 www.flowcrete.co.uk

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#### Heating and ventilation solutions at Ecobuild



Johnson & Starley's innovative approach to heating and ventilation solutions for the domestic and commercial markets is clearly set out at Ecobuild 2016. The company's established range of market leading warm air heating, gas boiler and ventilation products form the backdrop to a line up of innovations designed to provide solutions to particular requirements. Perhaps the most interesting development on cobuild stand no E3244 show at Ecobuild is Johnson & Starley's new 'Concept' Micro

CHP boiler. This extends the versatility of the company's heating range as it can run not only on natural gas but there could also be options for models to be used with hydrogen, kerosene or solar panels as potential heat sources.

01604762881 www.johnsonandstarley.co.uk

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#### Mapei's green innovation stand at Ecobuild



Mapei - one of the the world's leading manufacturers of adhesives and chemical products for building - will be exhibiting at Ecobuild, stand E6030. Mapei's commitment to innovation and sustainable development will once again be the focus of the exhibition; with the entire stand from concept to build designed with a keen eye on recycling, reusing and reducing

waste materials. At the end of the event, all materials not being re-used by Mapei including carpet, furniture, trees and plants will be donated to local schools/ charities. Mapei will also launch its new sustainability campaign 'GREEN BY NATURE' at the show.

0121 508 6970 www.mapei.co.uk

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#### Austrian 'green' construction programme



The team behind a pioneering summer programme in Austria which brings together the latest thinking in sustainable construction will be on hand at Ecobuild to discuss the course Summer University Green Building Solutions. (GBS) is a unique opportunity for professionals and students alike to

have the chance to discover more about sustainable techniques. It takes place over a three week period in Vienna. This year the programme's organisers will be on hand at the Advantage Austria stand at Ecobuild to give those interested a greater insight into the programme. The course is organised by the OeAD-Housing Office, which offers passive house accommodation for students across Austria.

Barbara.Mayr@oead.at www.summer-university.net

#### Saniflo exhibits at Ecobuild



Following a successful Ecobuild in 2015, Saniflo - a leading name in the plumbing & drainage sector - will also exhibit at this year's exhibition, stand number E5270, with a strong Kinedo presence showcasing a Kinedo Horizon shower cubicle, a Kinemagic Design shower cubicle and the Saniflo Sanifloor. The elegant Horizon range of

cubicles from the prestigious Kinedo brand features high quality 8mm toughened safety glass, built-in shower controls and integrated shelves delivering a complete showering solution that is simple and quick to install, maintain and clean. Available as a corner, quadrant and recessed cubicle, Horizon is suitable for any shape and size of bathroom and en suite.

020 8842 0033 www.saniflo.co.uk

#### Dallmer drainage channels on show at KBB



The internationally renowned manufacturer of drainage fittings for 'wetrooms' and a vast range of other high quality products, Dallmer will be exibiting at KBB Exhibition on Stand G75. Dallmer will be showcasing its CeraFloor floor drainage channel. This offers designers in the hotel, leisure, care and high-end residential markets the

optimum in terms of sophisticated visual appeal, backed by flow rate, accessibility for cleaning and flexibility of installation. The introduction of CeraFloor follows Dallmer's development of CeraLine and then CeraWall wet-room channels, all winning approval by leading architects and interior designers around the world.

01787 248244 www.dallmer.com

#### JIS Europe at KBB 2016



JIS Europe will be displaying its extensive range of stainless steel heated towel rails including the new RYE towel rail at the KBB Exhibition at The NEC from 6th to 9th of March 2016 on Stand G80. Its Sussex Range is available in polished or brushed satin finishes. All towel rails are manufactured to exacting stan-

dards and JIS Europe offers an extended range of sizes with new models to choose from. All the models are guaranteed for 25 years.

01444 831200 www.sussexrange.co.uk



### kbb back at Birmingham

Celebrating an impressive 30 years, kbb Birmingham, the UK's largest gathering of the world's best kitchen, bedroom and bathroom brands, returns to the NEC, Birmingham from 6-9 March 2016

Since the recession, which caused many businesses in the sector to suffer, the show has seen the industry pull through and is now proud to put on its largest edition since pre-2008. With so much support from the kbb community, the Birmingham event has been able to extend its floorspace by over 35 per cent with an increase of appliance, component and bathroom brands as well as more kitchen manufacturers, with many launching brand new products to the market.

Trading conditions have improved since 2014 and the forecast for the next 3 years is looking promising. That's why kbb 2016 is all about the theme of future, looking at future facing materials and designs, helping businesses with their future plans and challenging companies to deliver innovative products. The show will also have its first app, sponsored by ArtiCAD, which will help exhibitors and buyers engage during and after the four days of the show.

kbb Birmingham 2016 sees the return of great British companies along with new international exhibitors including, British Ceramic Tile Limited, Hepplewhite, Mereway, Schock, Arredo3, Keller Keukens, Scavolini, Abode, AEG, BSH Group, Sensio, Blanco, Bushboard, CDA, Cosentino, Formica, Franke, JJO, Nolte, RAK Ceramics, Roca, Notle, Rotpunkt, Schueller and Showerwall.

The Innovation Awards, in partnership with blum, aim to discover a product, method or idea that will provide a new and interesting solution to kitchens, bathrooms or appliances, to help shape the future of the industry. The entries will be judged by an esteemed panel of judges including kbb Sales Director Jon Johnston; David Sanders, managing director of blum; Editor of Kitchens, Bedrooms, Bathrooms, Ruth Bell; Renee Mascari, CEO of kbb ntg and designer Hayley Tarrington-Robson from Day True. The winners will be announced before the show, but visitors will be able to cast an innovative eye throughout the show and choose their favourite from the shortlist via the brand new kbb show app.

David Sanders at Blum, commented: "Blum is a company that has innovation at its heart and it's a completely natural connection for us to be involved with the kbb innovation award which is at the heart of the UK KBB industry"

kbb Birmingham will present a host of well-known speakers at this year's Retail and Design conference; held in the new Arena positioned at the heart of the show, the conference will



create an ideal space for conversation and networking. Speakers will provide insightful discussions, along with invaluable advice across a range of topics from Kitchen Design Trends; Consumers in 2016 – Home is where the hob is, to Making social media part of your business and The Ten KBB design trends you need to know.

Speakers include CEO of Bathstore, Gary Favell, who will talk about the business, the high street, big-ticket retailing, the changing consumer and the challenges facing the industry. Steve Esdaile from Esdaile Design, an interior and brand design consultancy that has designed showrooms for the likes of Bathstore, CP Hart and Magnet, will outline practical ways to utilise your own design skills to make the most of your showroom and your customer's journey. Other speakers include Diane Berry, Lee Taylor from Taylors etc. and Dick Powell from SeymourPowell, with more being added to the programme each day.

Sales Director at kbb, Jon Johnston commented: "I'm really looking forward to kbb Birmingham 2016. The quantity and quality of the brands involved in this year's show will, in my opinion, ensure the biggest and best event yet. The bigger than expected demand for space at kbb reflects that the UK market is an exciting one, not just in terms of the volume of demand for product, but for innovative product design and function. I would recommend visitors try and spend more than one day at the show."

kbb Birmingham runs from 6-9 March at NEC, Birmingham. Visit **www.kbb.co.uk** to register for your ticket and for more information



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Specialist door manufacturer, Ahmarra Door Solutions has relaunched the Artisan Panel Door Collection to include stunning designs from its latest projects. Artisan panel doors have already featured in some of the most prestigious residential developments in the UK. Proud to fly the flag for British craftsmanship, the Artisan Panel Door Collection offers the very best quality in terms of design and materials. To view the new brochure, visit the company's website.



1st Folding Sliding Doors Ltd, based in London, offer the supply and/or installation of specialist concertina style and sliding doors. Its staff have many years of experience behind them and are proud to offer a personal service, handling the project from concept to completion. It has its own in house fitting teams to ensure the installation is carried out with the minimum disturbance. The company can also arrange a free site survey to offer advice on designs.



Profile 22 has launched a unique externally Flush Tilt-Turn window system designed for commercial applications, especially medium and high rise buildings. The distinctive sleek, urban and modern design of its flush exterior frame avoids the overlapping of framework associated with conventional PVC-U systems, making it especially suitable for applications such as new-build apartments, housing hotels, offices, universities and colleges.



Looking to modernise your property with contemporary windows and doors complete with stylish frames? Then get ready to be inspired with **TanumsFönster**, the highly regarded window, patio door and sliding door specialist based in Sweden.

The windows are available in triple glazed timber and aluminium clad wood options with a standard U-value of 0.9  $W/m^2K$ , the energy-saving benefits are tangible.

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# We're experts in manufacturing aluminium and PVCu windows and doors supplied on time, every time



Fitzherbert Road, Farlington, Portsmouth PO1 6SQ

info@window-warehouse.co.uk

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Architectural Bronze Casements make bespoke. handmade bronze windows. doors and screens. Bronze is an exciting and traditional alternative to the steel and aluminium windows generally available. Made from architectural bronze which is strong, long lasting and visually appealing, bronze casements offer fine sightlines, thermal efficiency and low maintenance characteristics. They are usually incorporated within stone, brick or timber openings.



Delivering high specification aluminium windows and doors on time, every time is the main priority for Window Warehouse. The Portsmouth based company has invested in extra production capacity to keep ahead of the increase in demand for aluminium and PVCu windows, commercial glazing, sliding and bi-fold doors. Window Warehouse has a 30 year track record of supplying residential and commercial developments across the south of England.



To celebrate Kloeber's 10th year of operation, two new timber FunkyFront contemporary door panels have been added to the product range; The Westfalia and The Wolfsburg. Both of these contemporary door panels are variations on our best selling FunkyFront doors and are available fully factory finished in any RAL colour or from a selection of stains. For Kloeber's complete range of bespoke glazing products please visit the company's website.



SIMONSWERK TECTUS a complete solution and extensive range, multi award winning iconic design and precise engineered functionality. TECTUS hinges allow for three dimensional adjustments to obtain perfect door alignment, contain maintenance free bearings and present a flush fitting clean line design. Created for safety, with minimum pivot gaps to prevent finger injury, these hinges are available in an unrivalled range of high quality surface finishes and size options.

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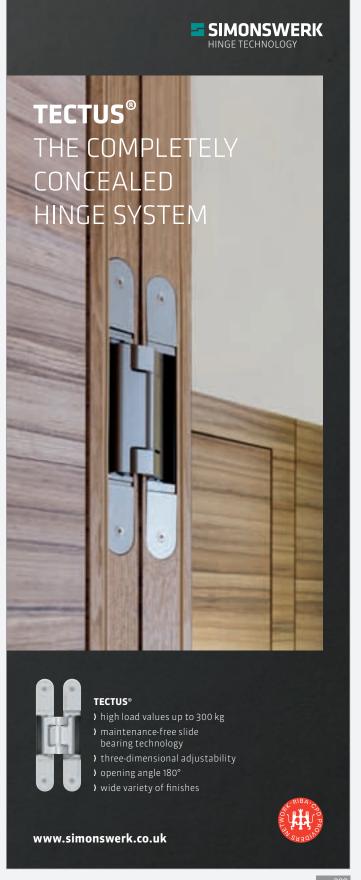
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The 100% Design Exhibition proved to be the ideal venue for Cooke Brothers Ltd to showcase the latest product in the PIVOTA® range of concealed hinge design solutions. The new DX80 3-D ZA extended throw hinge, has been designed to provide a full 180 degree of operation, while providing the option of a completely flush sightline line between the door and the wall fascia. The hinges are acknowledged as being at the forefront in advanced 3-D adjustable hinge design.



Quayside Conservatories' attractive roof lanterns are created from Far Eastern. sustainable hardwood. All rafters, hips and ridge have a deep timber moulding. Glazed units are supported by neoprene gasket, externally secured by maintenance-free powder-coated cappings which comprise a two-stage aluminium system to provide a weather tight seal. Each element of the roof is colour-coded, to suit the style of the roof area which it is intended to enhance.



Urban Front design and make hardwood contemporary front, passive house, internal feature and garage doors with steel reinforced cores, high security locks, security keys, and pivot or 3D hinges. All doors are made in the UK and exported worldwide. Urban Front's five timbers are European Oak, American Black Walnut, Iroko, Western Red Cedar and Fumed Oak, but also available as a painted finish in any RAL colour. Check out the company's new website.



4 Season's Ultra Slim anodized sliding door system's advanced design and engineering delivers 20mm sightlines throughout the visible system. An idyllic scenario you may think, coupled with excellent thermal values e.g. Double Glazed Sliding Door System Uw values of 1.22w/m<sup>2</sup>. This combined with high security electrically operated locking (as standard) makes the Ultra Slim anodized sliding door unrivalled in both security and aesthetic appearance.

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# Closing the shop door makes good business sense

The weather may have been mild so far, but with experts predicting severe temperature drops and a spare capacity of just 1.5 per cent in National Grid energy reserves, GEZE UK is urging retailers, architects and specifiers to consider the environmental and financial impact of keeping shop doors open when specifying entrance systems.

Independent research by the Close The Door Campaign, of which GEZE is a sponsor, found retailers could reduce winter energy consumption by up to 50 per cent by shutting their doors when the heating is on.

The retail sector consumed £3.2 billion of energy in 2013 and as an industry has the second highest energy consumption in the UK. Research by Cambridge University commissioned by the Close The Door campaign showed that keeping a door open and using air curtains and additional heating significantly increased energy usage, driving up  $CO_2$  emissions – figures that

dramatically reduced by closing the door.

While shutting the door drives down energy use, Kaz Spiewakowski, managing director of GEZE UK explained that specifying the right door will contribute to energy efficiency. He said: "By considering the environmental benefits of 'shutting the door' during the specification process, retailers, architects and specifiers can create attractive welcoming entrances that offer maximum energy efficiency.

"There are a range of sliding, swing and revolving automatic doors available to suit every application. Activation products such as unidirectional radar sensors ensure automatic doors are only open when a user approaches, closing again as they depart, reducing 'hold open' time by 40 per cent. Automatic doors also allow shoppers to enter and exit a store without needing to break stride, juggle shopping or let go of a trolley."

Reducing energy consumption is particularly



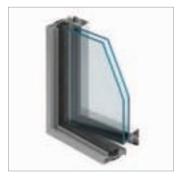
important this year. In November, the National Grid appealed for more power for the first time in three years, while energy regulator Ofgem warned that without action spare capacity could fall to zero.

Jeannie Dawkins, founder of the Close The Door campaign said: "I founded the campaign after seeing the heat from open shop doors melting snow on the street. It defies common sense – you wouldn't turn on the heating and leave doors and windows open at home, so why do so many businesses do it?"

01543 443000 www.geze.co.uk

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#### Aluprof listens to specifiers



In all forms of new and refurbished building construction, Specifiers today are seeking to reduce window frame sight lines to increase light transmittance. Aluprof, one of Europe's leading systems companies, has designed a system with the slimmest of sight lines, the new 'MB Slimline' system. With a fixed light and opening light aluminium face width of just 32.5mm Aluprof's new 'MB Slimline' window offers both good looks and high thermal performance – something steel window systems cannot offer. U values of below 1.00 are achievable, as the new system will accept both double and triple glazing options coupled with aluminium profiles which use wide polyamide thermal break. With a wide range of profiles available, the 'MB Slimline' system can offer high inertia ratings and slim, deep profiles, offering the specifier the ability to use the system in any large, or small, window spaces. Ideally suited to both new and replacement projects, in both residential and commercial environments, where slim lines are crucial to the aesthetic appearance of the building, the 'MB Slimline' system offers a complete solution. 'MB Slimline' is further proof of Aluprof's innovative approach to fenestration solutions, establishing itself as one of Europe's leading systems companies.

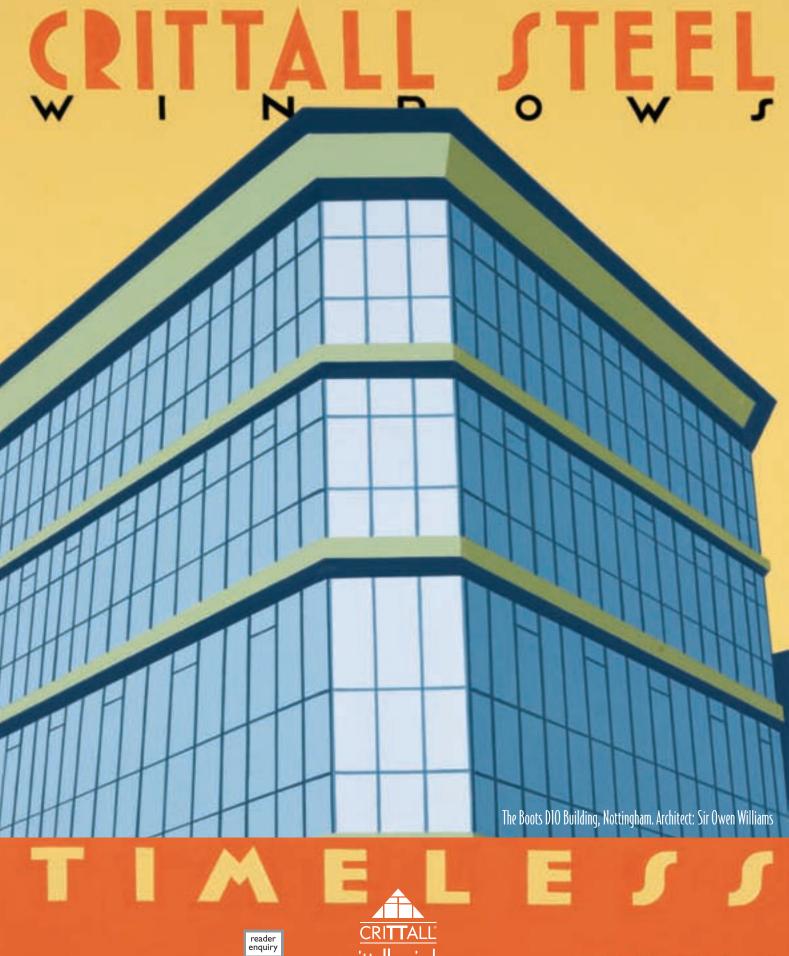
0161 941 4005 www.aluprof.co.uk

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#### Physics students go round

The G.O. Jones (Physics) Building at Queen Mary University, London, has recently benefitted from a £5.5 million refurbishment, creating more efficient facilities throughout. Smoothly allowing access for students and staff, a new all-glass revolving automatic entrance from TORMAX creates a contemporary focus to the upgraded facade. To one side, an automatic swing-door allows easy access for less able users. Due to restricted space the door is powered using the unique TORMAX iMotion 1401 operator which is concealed in a unit under the floor. TORMAX was contracted by Hutton Construction, to design and install a four-wing automatic revolving door system to the main entrance, as well as a swing pass-door to one side. Tested in prestigious buildings worldwide, the door is powered by a high torque TORMAX Universal 5201 door operator. Capable of delivering unparalleled reliability, a self-monitoring function allows optimum performance to be maintained at all times, automatic adjusting movement in response to factors such as wind resistance or a build-up of dirt for example. The door leaves themselves are fitted with advanced sensor controls to ensure precision movement in response to pedestrian footfall, as well as user safety. "In any location where space is at a premium, revolving doors are still the most effective solution." comments Simon Roberts. MD for TORMAX.





www.crittall-windows.com

# Reynaers at Home presents suite of hypoallergenic designer handles: Purity

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Reynaers at Home's range of hypoallergenic designer handles – Purity – is proving more popular than ever thanks to stunning aesthetics, durability and innovative material and coating.

For the design and development of Purity, Reynaers at Home joined forces with the Italian designer Leo De Carlo, who worked for Philippe Starck's agency in Paris for several years. He drew inspiration from his home town of Venice for Purity's innovative and minimalist design.

Leo De Carlo said: "Reynaers is known for its technical competence, attention to detail and environmental awareness.

"The material used in Purity is a compatible alloy, which doesn't contain any toxic elements, such as lead, nickel or chrome. What's more, it is made using a production process that ties into Reynaers' environmental credentials."

Purity handles are crafted using a recently developed, highly durable alloy called PURA™ and





advanced technology makes it possible for it to be protected. The handles are coated using an innovative production process called BIOV™ (Bioecologic Ion Overlay). This is an evolution of the old PVD coating process, which requires no galvanic chrome, doesn't produce toxic

waste and means the designer handles are 100 per cent recyclable.

The surface hardness is more than double that of a standard surface treatment and the corrosion resistance is on a par with that of the highest quality stainless steel. Even more impressive is the fact that the coating is hypoallergenic.

Available in a range of three striking standard colours, plus five more available on demand, the Purity handles are suited across a range of Reynaers at Home doors, allowing homeowners to have matching handles on aluminium sliding doors, bifold doors, double doors and single side hung doors.

Reynaers at Home is a premium brand dedicated to offering the very best architectural glazing products and service to the discerning householder.

0121 421 9707 www.reynaersathome.co.uk

#### GEZE doors create a dramatic new entrance



Glasgow's oldest theatre suffered from limited accessibility and cramped, poorly functioning space. Designed to enhance the audience's journey from 'street to seat,' the stunning new elliptical foyer extension by Page\Park Architects has brought the Theatre Royal Glasgow firmly into the 21st Century. GEZE

UK was commissioned to install automatic sliding doors to create an entrance lobby on either side of the new foyer and a further set of automatic sliding doors were installed to access the City's only public roof terrace. Powerdrive PL operators have been fitted to the two 2.7m high and 1.6m wide ISO glass doors with girder profiles and pockets screens that provide access to the roof terrace.

01543 443000 www.geze.co.uk

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#### Perfect remedy at historic hospital site



More than 700 high quality windows and doors were supplied and installed by Global UPVC at a prestigious development on the historic Caerphilly Miners' Hospital site. All 82 homes received Legend casement windows and French doors from the long-standing local Synseal fabricator. Legend is one of three 70mm PVC-U window systems

created by Synseal, along with the chamfered Shield and sculptured SynerJy with its innovative j-form curves. Legend was first introduced to help installers gain a greater presence in the commercial sector, but has since also become a favourite in the retrofit market with a choice of chamfered or ovolo profiles.

01623 443200 www.synseal.com

enq.320

#### New WarmCore retail brochure



Synseal has published its most expensively-produced and deluxe sales brochure since the launch of Global conservatory roof – a new WarmCore retail brochure. Entitled "Warm, Secure, Beautiful", the brochure presents the revolutionary 'warm aluminium' thermal core

differentiator which is the key to WarmCore's improved thermal performance, creating a product which is warmer by design to save consumers money. Neat and perfectly aligned parallel stacking of WarmCore sliding sashes is illustrated and security features are fully explained, including the comprehensive ERA Five Star Guarantee for added peace of mind. "We're looking to sell the system with some added sizzle," commented Synseal's Head of Marketing, Mark Schlotel.

01623 443200 www.synseal.com

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#### Masterframe revamps prestigious golf club



Halo fabricator Masterframe was delighted to provide the replacement windows for a challenging refurbishment contract at The Royal Troon Golf Club on the Ayrshire coast. MD of Masterframe Windows Alan Burgess said: "A high quality PVC-U window created using Halo profile was

chosen to match the existing windows...The final specification was a Vintage Traditional window with fully butt jointed frames and sashes complete with laminated Glass. The windows would be complemented by Antique Brass claw cam catches and bar handles...Interiors featured bright White Woodgrain, Irish Oak and rich Rosewood foils from VEKA UK Group's Variations collection."

01282 716611 www.vekauk.com

# Windows with nanostructured coatings can cure "sick" buildings

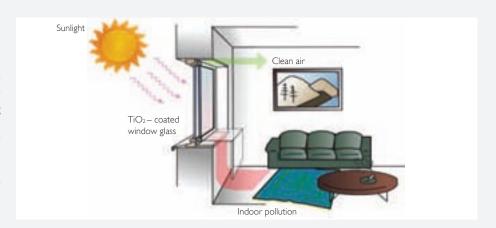
Harmful organic molecules in the indoor air can cause adverse health effects – a problem known as the "sick building syndrome".

Current air-cleaning technologies require both energy and maintenance, but a promising new solution is being developed at Uppsala University – window glass with a nanostructured coating based on titanium dioxide which uses sunlight to remove organic pollutants from the indoor air by passing it between the inner panes of the window.

The preparation of such coatings, tailor-made for indoor air cleaning, was studied by Bozhidar Stefanov and his dissertation shows how they can be made more effective.

Titanium dioxide is a white pigment often used in paints, toothpastes and sunscreens. In the form of nanoparticles, it obtains special properties which make it chemically very reactive. It efficiently absorbs ultraviolet light and uses this energy to destroy organic molecules at its surface in a process called photocatalysis. This has made titanium dioxide the "white knight" of nanotechnology and the photocatalyst of choice for water and air cleaning. Recently, pavement blocks of titanium-dioxide-impregnated cement have been used to mitigate air pollution from outdoor pollution in cities. A field trial has been conducted in Malmö (Sweden).

Researchers at the Division of Solid State Physics at the Ångström Laboratory of Uppsala University are now taking the idea up a notch and harness photocatalysis for indoors air cleaning. Using an industrial process called "magnetron sputtering", they have deposited nanostructured surface coatings of titanium dioxide onto window glass. These coatings are transparent, have a thickness a hundred times less than that of



a human hair, and have been shown to be very effective for removing acetaldehyde, which is a common indoor air pollutant.

Windows comprising of such titanium-dioxidecoated glass can be used to clean air indoors, but there is one problem. Normally pollutant decomposition products bind strongly to the photocatalyst surface and block active sites, thereby leading to loss of photocatalytic activity. In his thesis Bozhidar Stefanov shows that the sputter-deposited coatings have a great advantage connected with the exposed crystalline facets of the nanoparticles comprising the coating. Just like the dices used in gambling, not all sides of the titanium dioxide nanoparticles are equal in their reactivity, and some of their crystalline facets are much more active in photocatalysis than others. Unfortunately, these active facets correspond to only about 10 percent of the nanoparticle surface, and in coatings made of randomly oriented nanoparticles it is very difficult to strike a "lucky six" and have the reactive facets exposed at the film

surface. During his project, Bozhidar Stefanov found a way to tweak the deposition of sputter deposited titanium dioxide films in order to "cheat the dice" and have a high probability of the very reactive titanium dioxide facets at the surface.

These preferentially oriented coatings exhibit not only higher activity against air pollution, but their activity is also less dependent on external conditions such as humidity and temperature.

Furthermore, he also found that if the surface of such preferentially oriented titanium dioxide coatings is made acidic by attachment of sulfate molecules they become even more resistant to deactivation. Bringing these new findings together – preferential nanocrystal orientation, sulfate modification, and controlled humidity and temperature – Bozhidar Stefanov has realized a new principle for a photocatalytic window with sustained air cleaning activity. This is an important step forward to improve indoor air.

### adf website

The Architects Datafile (ADF) website is an online provider of past and present products and news items for the architect or specifier. architectsdatafile.co.uk is a one-stop source for all the latest press releases providing any visitor with access to information about products and services that they may require. From the website, you can find links to digital issues that have live links to advertisers' sites, as well as daily email alerts to keep you as informed as possible.





#### LABSS approval granted for Celsius Solid Roof



The recently-introduced Celsius Solid Roof system from Synseal is now fully approved and registered by the LABSS (Local Authority Building Standards Scotland) as checked for compliance with Scottish Building Regulations under certificate number EWS550. Construction of a completely new solid roof or replacement of an existing conservatory roof with a

retrofit solid roof involves a statutory obligation to submit a Building Regulations application. The scope of Synseal's updated certificate number EWS550 now covers England, Wales and Scotland to facilitate mandatory legal technical compliance procedures for site locations in all three countries.

01623 443200 www.synseal.com

enq.323

#### Force 8 adds Halo's Rustique to its range



Stockport-based Network VEKA member, Force 8 has added the coveted Rustique profile system to its extensive offering. Force 8 specialises in providing arched frames bent from one continuous length of profile. The company has attracted customers from far and wide, who want a seamless finish for their arched windows and doors, without the need for unsightly joints. MD Dennis

Sumner explains: "As a company, we're proud to offer our customers a host of specialist products and services that they wouldn't find elsewhere."

01282 716611 www.vekauk.com

ena.324

#### Crittall helps maintain 'industrial heritage'



184 Shepherd's Bush Road, a new landmark headquarters building in West London, has been created using Crittall Windows to reflect its historical context and satisfy conservation requirements. The character of the building's broad frontage has been retained – an important

consideration because of its listing and its location in a conservation area – with Crittall large form Berkeley windows providing a significant visual aspect in the street scene. Berkeley offers an ideal solution for both replacement projects and new construction where minimum sightlines, maximum daylight, and fine detail are desired. The system is suitable for high-end residential, institutional and, as in the case of 184 Shepherd's Bush Road, commercial applications.

01376 530800 www.crittall-windows.co.uk

enq.325

#### Sustainable NorDan windows



Multi award winning developer Hill, a Top 20 housebuilder, has just completed new homes in Walthamstow with sustainable timber windows, from NorDan, a Scandinavian market leader. Sustainability is key to success, and high performance, NorDan windows help achieve the levels that housebuilders in the UK seek to achieve. Paul Detain, NorDan UK regional director says: "NorDan is famous for its Norwegian credentials,

sourcing the raw timbers from sustainable forests, and developing a product which has a tested long life cycle, over 60 years, and with almost zero maintenance requirements, especially where the timber frames are clad with aluminium."

01452 883131 www.nordan.co.uk

enq.326

#### Comar helps Cater House refurbishment



Comar Architectural Aluminium Systems, with their approved fabricator Anglia Fixing Ltd; recently completed a change of use refurbishment at Cater House in Chelmsford, Essex. This change of use project was completed using Comar 5P.i Top Hung Casement Windows to the communal stairways.

Comar 5P.i ECO Casement, Top & Side Hung windows and Comar 7P.i ECO Rebated Doors being specified for the apartments. The aluminium P.i window and door systems use trademarked Polyamide Insulated (P.i) that provides exceptional thermal performance and reduces heat loss through the thermal break ensuring low U-values and therefore ensuring energy bills are minimised.

0208 685 9685 www.comar-alu.co.uk

enq.327

#### Unique hardware solutions at FIT Show 2016



Barrier Components Ltd are to exhibit once more at the FIT show on stand 170 at the Telford International Centre. The company plans launch a number of new systems at the show but their main display focus will be their BarrierSabco frameless glass balustrade system and the brand new Vistafold120, a bottom rolling in-line hardware

system, tested up to 120kg sash weight, ideal for the new trend in triple glazing. The company will also reveal their VistaFold hardware. Barrier Components has been trading for almost 30 years and has been supplying Architectural Hardware for the Steel Gate, Sliding Door and Frameless Glass markets.

01708 891515 www.barrier-components.co.uk

enq.328

#### Compatibility counts



As a supplier of a wide range of membranes and adhesives, tremco illbruck is frequently consulted on whether for example, adhesive used for bonding an EPDM or 'intelligent' membrane is compatible with a 3rd party membrane already applied. In such situations, an immediate confirmation of compatibility is usually difficult to achieve as we may not have encountered the 3rd party

material previously and in order to offer a qualified response, we would in all likelihood have to carry out laboratory testing. The incidences of these potential issues has greatly increased during the last year or so, therefore tremco is compiling an on-going list of testing to enable potential confirmation of compatibility. The company is pleased to offer this as part of its technical service.

#### Lomax + Wood windows and doors



High performance, made-to-order, leaded light windows and doors from the Lomax + Wood Kensington & Chelsea range have been specified for a stunning new build property located on the private Coombe Hill Estate, Kingston upon Thames. Ideal for both new build and heritage work, Lomax + Wood's Kensington & Chelsea

products are manufactured from sustainably sourced, FSC\* Chain of Custody accredited timber in accordance with BM TRADA certification. Double glazed Kensington & Chelsea products provide excellent levels of thermal performance which exceeds the current requirements of Part L Building Regulations.

01277 353857 www.lomaxwood.co.uk

#### George Woods' timber door canopies



George Woods UK manufactures a large range of door canopies, all hand made in timber from sustainable forestry. It always holds a large stock of its standard size canopies, enabling it to offer a next day delivery service. A bespoke design service is provided for both timber door canopies and barge boards, which can be crafted from your own design. Beautifully crafted porch canopies are available in soft wood and include an extensive

range of barge boards (fascia boards), all manufactured on-site by hand. Having a canopy prolongs the life of the front door, extends time between maintenance and adds value and appeal to your property.

#### Door oil treatment from Osmo



Osmo UK has developed another eco-friendly finishing treatment to its already sizeable range, Osmo Door Oil. Designed specifically to protect and preserve wooden doors and all internal joinery, Osmo Door Oil is easy to use and gives a professional touch to internal doors, ensuring a high quality, tough and durable finish. It is a solvent-free solution, created from natural vegetable and plant oils and waxes. These organic properties ensure the treatment is quickly and deeply absorbed into the wood, enriching the wood's natural beauty and strength without

any cracking, flaking, peeling or blistering. It contains no biocides or preservatives and, when dry, is safe in contact with humans and animals.

#### Showcasing daylight



The UK's biggest Cooper BMW car showroom has opened in Reading. The 13,000 m² three storey building, which showcases over 100 new and approved used cars, marks a major relocation for Cooper BMW from its previous smaller site into a state of the art new facility. To complement the displays, the architects chose to specify the Kalwall translucent system for the elevation and for use on the main entrance canopy. This stunning backdrop, supplied and installed by **Structura UK**, helps to diffuse natural daylight deep into the interior thereby creating a well-lit and aesthetically pleasing ambience. At night, the elevation emits an ethereal and attractive exterior glow. Unlike conventional glazing, Kalwall eliminates shadows and glare and the stark contrasts of light and shade. The system also enhances simplicity by eliminating the need for blinds, curtains or solar control. Even on cloudy days, the interior is flooded with natural daylight, which means less artificial lighting and, because Kalwall is highly insulating, energy costs are reduced. Kalwall is distributed in England, Wales and Northern Ireland by Structura UK, a leading supplier, fabricator and installer of glass curtain walling, rainscreens, glass atria, windows and other architectural glass building products. Case studies and technical information are available from Structura UK Ltd.

enq.333

#### Glacier creates a visual sensation

Glacier is just one of three new door finishes set to change the landscape for interior design. Introduced by leading internal door manufacturer Vicaima, Visual Sensations provides a new collection and welcome addition to the popular Dekordor SD foils range. Designed to capture the essence of dramatic landscapes, bringing exterior colour and pattern to an interior environment, these wood look doors bring genuine innovation. Dekordor Standard Duty (SD) finished foil has long been a preferred choice for specifiers, offering as it does, a consistent and economical door finish which is suitable for a multitude of applications from homes to offices, in both the new build and refurbishment sectors. Now Visual Sensations create a totally new and unique Vicaima design that sets these doors apart from other products on the market. The Visual Sensations collection comprises 3 totally new and distinct timber grained tonal choices including, Glacier, Canyon and Forest. Each of these is available in a choice of designs comprising flush vertical and cross-directional woodgrain (CDW), plus CDW with a contrasting inlay effect. All doors are FSC certified for environmental peace of mind and can be supplied with a range of performance specifications including fire rated, acoustic and security as specification demands.



01793 532333 www.vicaima.com

enq.334

#### New energy-efficient automatic door delivers the looks and performance



Gilgen Door Systems has launched a new energy-efficient automatic door which overcomes the limitations often associated with thermally insulated products, delivering a solution which is both elegant in appearance and efficient in operation. The Gilgen PST <green wings> sliding door comes with low-profile slimline looks and offers outstanding energy performance, expressed as 'U' values, enabling entrances to be built sustainably without compromising design. The technologically advanced Gilgen SLX-M drive and energy-efficient PST door profiles combine to form a single unit. As part of the Gilgen <green wings> automatic door range, this combination provides a robust thermal barrier with a low visible profile similar to a standard automatic door. The design of these doors, with thermally separated profiles combined with double or triple glazing goes far beyond that of conventional sliding doors – both in terms of function and design; the compact drive mechanism and slim profiles being well matched to the straight lines of today's modern architecture. With system 'U' values of 1.1 to 1.8, depending on the configuration, these automatic doors fulfil the exacting demands of architects, specifiers and building owners in a world where energy efficiency and sustainability are a growing concern.

0800 316 6994 www.gilgendoorsystems.co.uk





#### Triton's new online resource for specifiers

Triton has published a new website (www.groundgasbarriers.co.uk) dedicated to its new range of ground gas protection systems. The site is designed to help construction professionals fulfill the guidelines set out in the recently revised Code of Practice BS 8485: 2015, which explains how to prevent the entry of carbon dioxide and methane into new buildings, and which has been substantially expanded and revised to reflect changes in good practice and to reference recent guidelines produced by CIRIA and BRE. The new site introduces all Triton's new gas protection products and includes liquid applied and sheet membrane systems. New Triton TGS-GM500 is a sheet membrane designed to prohibit the ingress of Carbon Dioxide, Methane and Radon. Where a barrier against explosive Hydrocardon gas is also required, new TGS-HCM1000 should be specified. Both membranes are highly puncture resistant and are designed to provide protection for the life of the building. A full range of ancillary products including fans, sumps, primers, tapes and components for sealing service entries is also available, as is training for specifiers and installers, and full back up and technical support.

01322 318830 www.groundgasbarriers.co.uk

enq.204

enq.205





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## How to rapidly meet environmental standards

Jim Gowan, Design Manager at Actavo | Building Solutions, explains how to rapidly meet environmental standards using modern construction methods. He has worked in the offsite and modular sector for over ten years



B ack in 1998, a government report 'Rethinking Construction' by Sir John Egan, recommended offsite construction was faster, safer, cheaper and higher quality.

As environmental standards such as BREEAM and Passivhaus continue to become more rigorous, offsite constructed buildings are leading the way in meeting those quality marks – a world away from their 1970's predecessors. The key is starting right.

#### Design for life

You secure your BREEAM Excellence or Passivhaus standard at the design stage because it is planned in by engaging the whole community on what they want from the building.

With modular buildings, there are far fewer onsite deliveries, so you drastically reduce your impact on the local area during the construction process, as well as with carbon emissions.

Whether the building is modular or traditionally constructed, the performance of environmentally-friendly

features are not affected. For example, a sunpipe, windcatcher, PV panel and ground or air source pump performs just as well in an offsite-constructed building as it does traditional.

#### Time out

Modular builds save time because they need considerably fewer weeks to deliver on programme, compared with traditional builds.

The more complex the building, the more time offsite construction methods save. Buildings are manufactured in controlled environments without exposure to the elements and with much easier-to-control and safer processes than a building site.

#### Doubling up

The crux of why modular is able to deliver greener buildings more quickly is because enabling works onsite can be carried out and foundations laid, while buildings are being designed and manufactured offsite.

Continued overleaf...

## BREEAM: success factors

Outstanding energy performance

Site management and procurement

Health and wellbeing ie indoor/ external issues; noise, light, air and quality

Transport

Water consumption and efficiency

Building materials used

Air and water pollution

Type of site and building footprint

Ecological value, conservation and enhancement of the site

## Passivhaus: success factors

Low space heating/cooling demand

Super insulation including triple-glazed windows

First-rate airtightness

Mechanical ventilation to provide constant fresh air and retain heat inside the house

#### Safe as houses

The risks of modular vs traditional construction are lowered by offsite construction taking far less time to build onsite which automatically means reduced risks of contact with the public. There are also fewer vehicle movements – both to and from the site.

Factory environments – in which modules are built – are much easier to control than building sites. These environments are easier to monitor, more efficient in their policies and protected from the elements which make modular less subject to the vagaries of weather-dependent processes which so often create havoc with traditional build programmes.

Building teams are also more protected from working at height because the design stage identifies jobs which can be completed while the modules are at ground level. Safer jobs score more environmental points.

#### Model builder

As an industry, we're getting better at building better buildings

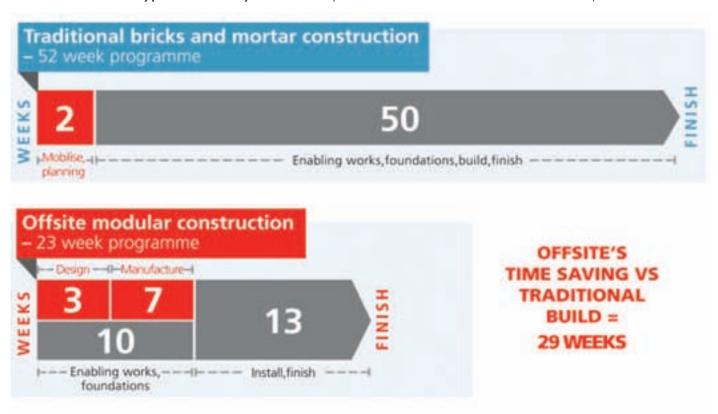
– a trend set to continue, given the direction in which
regulation is headed:

- Planning is key to holistic performance the two magic ingredients to the industry's incessant drive to build safer, faster, cheaper and ever higher quality, are planning and design. BIM (building information modelling) – we work to Level 2 – is pulling everything together (your stakeholders' opinions, optimising environmental performance, supply chain and identifying clashes) early in the construction process.
- Government is leading the way if you want to build a public building, you need to be fluent in BIM, CDM and modern methods of construction.
- Standards are slipping upwards as witnessed at Ecobuild in 2015 with the launch of the new BREEAM standards and the decrease in U values (lower means better insulation). Modular accommodates these changes more easily, as quality control is generally more rigorous and consistent in a factory than on a building site. Actavo | Building Solutions has achieved BREEAM 'Excellent' standards on a number of projects.

ena.207

#### Offsite's time advantage over traditional construction

Typical case study: a two-storey, seven-classroom block on a school campus



## Eco-Friendly pre-engineered, pre-assembled, modular products easy assembly on site



allbarn's new products – iDecking EasyClick and the next generation M-Tray\* modular green roof – are the ideal products for modular construction.

iDecking EasyClick is the revolutionary way to fit top quality composite decking. The design includes the innovative Duro Excellence composite decking boards. These eco-friendly boards are extruded with grooves on the underside which fit into special mounting clips, secured onto aluminium battens. Installation is simply a matter of stamping down on the boards.

No screws, no fixings and no timber joists are required. Every element is pre-measured and fits exactly. It is almost impossible to fix this decking incorrectly. For more information visit idecking-uk.com.

M-Tray\* is the next generation of modular green roof system. Wallbarn's new design gives more space for the roots to grow and offers optimum drainage, meaning stronger, healthier plants. The modules are easier to carry with hand grips and rounded edges, so the risk of damage is avoided. The modules clip together more tightly and securely, giving a more seamless appearance.

Nothing spills out and M-tray\* can be installed in areas where roll-out green roofs cannot.

M-Tray\* is manufactured in UK using recycled polypropylene and is the exclusive design of Wallbarn, Community Registered Design No. 002953943-000 US Design (Application No. 29/553,129).

Often imitated Rarely matched Never surpassed



Both of these systems are off-site, pre-fabricated products. They have been developed to make installation a faster and simpler process. Cutting, fixing and inclusion of sharp or messy elements have been removed from the process. Installation is more assembly than construction. There is the minimum of fixings and less disruption on site. The deck is not penetrated.

Both EasyClick and M-Tray\* are super-fast construction systems using sustainable and environmentally friendly materials.

0208 916 2222 www.wallbarn.com

enq.208



#### Sika Liquid Plastics keeps Asda open

A popular Scunthorpe supermarket has recently benefited from a complete roof refurbishment using a **Sika Liquid Plastics** Built-Up Roof waterproofing system. The Asda store had to remain open throughout the project, requiring expert planning by Northampton-based contractor Ice Roofing. The building, originally constructed in 1976, was suffering from water ingress and the roof was in urgent need of repair. To ensure that the store could remain trading throughout the project, the client required a cold applied waterproofing option. the contract involved a tight timescale to refurbish several of the supermarket's large roof areas, totalling 2,000m². Completed in just 10 weeks, two teams of three first increased the height of the roof by increasing the insulation thickness around various complex details. Sika Liquid Plastics' Decothane Gamma 20 roof coating system in Slate Grey was then applied over the entire roof area. The cold applied, zero flame, zero heat Built-Up Roof system allowed the store to remain operational throughout the works; a key benefit for the local community. A mineralised walkway was also installed to enable ease of access for future maintenance work.

eng.209



0800 112 3826 gbr.liquidplastics.sika.com

#### Remmers deliver Food Grade Flooring



Hygienic food grade flooring was required to the automated filling and packaging lines at the relocated premises of Nature Delivered. A number of steel structure mezzanines were constructed to maximise space and house sorting and packing machinery. Each mezzanine level required a com-

plicated matrix of cross falls within the sub-screed and a hard wearing, hygienic, slip-resistant resin floor finish, with integral perimeter coving. Due to the fast track nature of the build process, an epoxy damp-proof membrane was required prior to installation of the resin finishes. Remmers Haftfest Polymer was added to the sand/cement screed to improve its performance characteristics, increasing compressive strength and reducing the potential for drying shrinkage cracking.

0845 373 0103 www.remmers.co.uk

Architects Datafile website

enq.211



The Architects Datafile (ADF) website is an online provider of past and present products and news items for the architect or specifier. architectsdatafile.co.uk is a one-stop source for all the latest press releases providing any visitor with access to information about products and services that they may require. From the website, you can find links to digital issues that have live links to advertisers' sites, as well as daily email alerts to keep you as informed as possible.

www.architectsdatafile.co.uk

#### New design guide from Lindapter



Lindapter, the steel connection specialist, has launched a product guide for engineers and other professionals involved in the design of structural and secondary connections. The document features popular products such as the Girder Clamp for quickly connecting I-beams without drilling or welding and the Hollo-Bolt\*, the original expansion bolt for Structural Hollow Sections (SHS). The new guide is

designed to allow engineers to quickly select the required connection solution and includes a helpful product comparison table, typical applications and independently approved safe working loads. New products are also introduced such as the Type AAF high slip resistance clamp and Type ALP adjustable lifting point.

01274 521444 www.lindapter.com

enq.212

#### Levolux fills up in Bristol



Filwood Green Business Park in Bristol capitalises on the latest innovations in sustainable building technology, including integrated photovoltaic panels, a green roof and a Timber Fin solar shading solution from Levolux. As one of the UK's leading solar shading and screening specialists, Levolux was approached at the design stage to develop a highly sustainable Solar Shading solution,

comprising vertical and horizontal Timber Fins. Not only do the projecting vertical Fins provide effective shade to glazed openings, preventing excessive glare and solar heat gain, but they also create a striking architectural feature. All Timber Fins are formed from PEFC Certified Thermowood, which is a lightweight, durable timber, requiring no application of a finish.







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#### Kawneer wins two firsts at Prime Four



Architectural glazing by Kawneer was specified for a major hotel chain's first village resort in Scotland and for a departure in design detailing for the business park it is located on. Kawneer's AA\*110 zone/mulliondrained curtain walling, with 65mm sightlines, has been

used alongside the manufacturer's AA\*541 top-hung casement and AA\*543 tilturn windows and series 190 heavy-duty commercial entrance doors throughout the £14 million De Vere Village Urban Resort at the Prime Four Business Park in Kingswells near Aberdeen. The aluminium systems were specified by frequent Kawneer users Halliday Fraser Munro architects for their "familiarity with the use of the systems through past projects".

01928 502500 www.kawneer.co.uk

#### A 'living' facade in harmony with nature



Over 6,268m2 of ROCKPANEL Natural boards have been used to create an extraordinary facade for a new office building with workspace for BRUNNER, a forward thinking German company that designs and manufactures high-quality stoves and fireplaces.

The cladding was carefully chosen, with Corten steel and larch shingles both being shunned in favour of the style and flexibility offered by the 10 mm ROCKPANEL Natural boards. Just as wood weathers and changes hue, the look of these robust basalt panels is matured by sunlight and natural weathering. The initial yellow-green colour of the uncoated boards darkens after about six weeks to a rich brown, resulting in a uniquely warm and natural looking facade.

01656 863210 www.rockpanel.com







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#### Technological Marble for the Zorlu Centre



The Zorlu Centre in Istanbul, designed by architects, Emre Arolat and Tabanlıoglu, features a 96,500 m² shopping centre, a five-star hotel with 130 rooms, apartments, office spaces and a culture and art centre. Compac's high performance, technological marble in Beige Faraya was specified for the building's external facades which covered an area of 85,000m² and over 12,000m² was specified for internal flooring and wall cladding. The result was a stunning, cool contemporary look which perfectly complemented the design requirements of the project.

#### Manage rainwater the anthracite grey way



Freefoam Building Products is delighted to announce the launch of a new range of rainwater products in the contemporary colour Anthracite Grey. With a 45 per cent increase in sales of Anthracite Grey fascia and soffit in 2015 and a growing overall market trend towards grey window frames, doors, fascia and soffit adding an Anthracite Grey Deep gutter range was the next logical step. Freefoam has created a product that allows customers to create a truly co-ordinated roofline with the new rainwater range offering an exact match (Ral No.7016) to the already popular fascia and soffit products.

01604 591110 www.freefoam.com

eng 224

#### FIT show opened the right doors for Finesse



Previous FIT Shows have offered installers valuable new opportunities, even when those companies are already considered top of their game, it has emerged. One such company is Carlisle-based **Finesse Group**, which offers a full range of home improvement services. But despite the broad reach of the company, owners Ian Milburn and

Kevin McGarr believe in the power of exhibitions to help keep them on top of their game – and not just for the products. "It is one of the most exciting times in our company's history," Ian said, "and we need good trade shows not only to find the newest products but also to meet the people that are selling them. We don't just buy products; we seek trading partners – companies that we can grow with."

0845 0945 077 www.fitshow.co.uk

enq.225

#### Curtain walling keeps slim sightlines in view



For projects that desire a sleek, uniform appearance and demand exceptional energy efficiency, the new SF52 curtain wall system from Senior Architectural Systems can provide the perfect combination of aesthetics and thermal performance. Interest in Senior's thermally enhanced SF52 system has continued to soar following

the product's official launch in 2015, with SF52 now firmly established as Senior's most popular curtain wall solution. Key to the system's successful reception is its slim 52mm sight lines which help achieve an attractive uniform appearance. Available as a mullion drained system which removes the need for visible drainage slots, the new SF52 system can also be specified as capped, silicone sealed or as a combination of the two for even greater design flexibility.

## THE EVOLUTION OF INSULATION

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The Icynene Insulation System is a series of soft, flexible spray foam insulation products that delivers up to 50% greater energy savings when compared to other insulation products. Icynene is perfect for loft insulation, cavity wall insulation, drylining insulation, sound insulation and more.

Icynene has been successfully tested and certified for applications directly to the underside of breathable and non breathable roof membranes and felts and recently received BBA certification for this application. Icynene absorbs the lowest amount of moisture and has the highest level of vapour resistivity of any soft foam on the market.





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#### Home set for EnerPHit with Kingspan TEK®



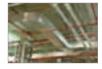
A 1960's bungalow is expected to become Jersey's first EnerPHit certified home thanks to an extensive refurbishment, featuring the Kingspan TEK\* Building System. The owners prepared a sensitive redesign and extension of their own property, set within Jersey's Green Zone conservation area. To deliver this high

level of fabric performance, Jeco Homes Ltd., a Kingspan TEK® delivery partner in Jersey, used the Kingspan TEK® Building System to replace the property roof and to form the walls of the new extension. Kingspan TEK® Building System panels comprise a high performance insulated core sandwiched between two layers of OSB/3, allowing them to deliver outstanding thermal performance.

01544 387 384 www.kingspantek.co.uk

enq.229

#### Kingspan delivers top service



The Kingspan KoolDuct System is well recognised as the premium choice for insulated ductwork. Now, to ensure outstanding energy performance and streamlined installations, Kingspan Insulation is pleased to announce its first Kingspan KoolDuct Delivery Partners: CG3,

GB Air Solutions, Pascal Air, Sterling Thermal, Technicool and West Mercia Air. These highly experienced partner firms have been carefully selected based on their extensive industry knowledge and have undergone further rigorous training from Kingspan Insulation personnel, ensuring they're able to provide the best possible service on every installation. Contact details for all Kingspan KoolDuct Delivery Partners are available from the Kingspan Insulation website.

01544 387 384 www.kingspaninsulation.co.uk

ena 230

#### Thermoblock premieres in Leicester Square



The refurbishment of a landmark listed property on London's Leicester Square has seen Marmox Thermoblocks specified in very large quantities for an unusual application. With a full facade retention structure in place and the basement area framed by a retaining wall, the project team's solution involved raising an internal inner blockwork wall using aerated concrete.

As part of this, the project team elected to make use of the Marmox Thermoblocks as a means of minimising heat loss at the critical floor wall junction. The 600 mm long insulation units incorporate mini columns of high strength, low conductivity concrete to support the load of the wall above while the low lambda value insulation virtually eliminates the path for cold-bridging.

01634835290 www.marmox.co.uk

enq.231

#### The return of Kooltherm K10 Plus



Kingspan Insulation's Kooltherm K10 Plus Soffit Board is back by popular demand, featuring a non-combustible external facing, for outstanding fire and thermal performance. The 1.2 x 2.4 metre boards are suitable for ceiling applications beneath a conditioned

floor, such as within underground car parks. Their fibre-free insulation core holds a Class 0 fire rating, with negligible smoke obscuration, and is pre-bonded to the non-combustible outer layer. With a thermal conductivity of 0.020 W/m·K, the premium performance insulation core of the Kingspan Kooltherm K10 Plus Soffit Board can allow target U-values to be achieved with a minimal construction thickness. All Kooltherm insulation products are certified to BES 6001 'Excellent'.

01544 387 384 www.kingspaninsulation.co.uk

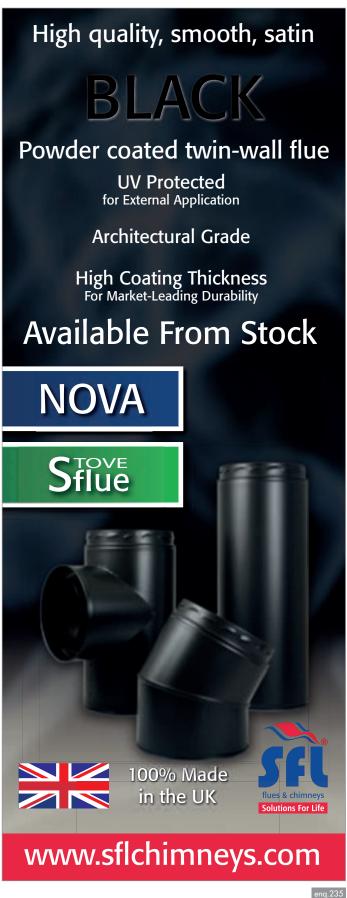
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ena.234



#### Wi-fi controls for Digi-Line electric radiators



The long awaited wireless programmer for Electrorad's best-selling range of Digi-Line electric radiators has been unveiled. Named Touch E3, the new control hub with wi-fi gateway and App enables wireless control and direct management of home heating over the internet from anywhere in the world. In conjunction with an unobtrusive and easy to use touch screen control unit that may be wall mounted or free standing anywhere in the home,

homeowners can control all of the heating functions using a smartphone, tablet or PC courtesy of Electrorad's CleverTouch App that is available for iOS and Android. Touch E3 also incorporates an inbuilt energy monitor that provides energy usage data for complete energy management.

#### Exposed ceilings and plenum air conditioning



Design and architecture trends can lead to a number of challenges for consulting engineers specifying heating, ventilation and air conditioning. Making use of the plenum beneath a raised access floor as the ventilation zone for air conditioning can overcome a number of these challenges. Underfloor

systems can be easily adapted and reconfigured for future changes in the use of space and occupant density. **AET Flexible Space** is a specialist in underfloor air conditioning technology and has worked with designers for twenty five years to overcome structural and height restrictions, as well as design challenges associated with new build and refurbishment projects alike.

01342 310400 www.flexiblespace.com

eng.237

#### New Fast-Coupling Wire Basket



Two steps and four seconds are all it takes to install cable management specialist Marshall-Tufflex's latest new product, the Fast-Coupling Wire Basket system. Suitable for industrial, commercial, renewable energy and transportation installations, Fast-Coupling Wire Baskets are quick and easy to assemble (no tools required) thanks to an integral pushfit coupler which connects the baskets together and gives the system strength and rigidity. The strong, lightweight baskets have great structural stability thanks to a unique rippled wire

construction and are corrosion resistant, making them suitable for use in harsh environments. Two heights are available, 65mm and 105mm.

01424 856655 www.marshall-tufflex.com

enq.238

#### Architects Datafile website



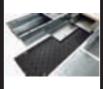
The Architects Datafile (ADF) website is an online provider of past and present products and news items for the architect or specifier. architectsdatafile.co.uk is a one-stop source for all the latest press releases providing any visitor with access to information about products and services that they may require. From the website, you can find links to digital issues that have live links to advertisers' sites, as well as daily email alerts to keep you as informed as possible.

www.architectsdatafile.co.uk

#### **SCREEDUCT®**









Screeduct® ducting systems are pre-formed modular tray sections manufactured from hot-dipped, galvanized steel, mild steel, stainless steel, and aluminium. These sections allow the laying and protection of pipework, or power supply cabling, safely within floor screeds. Our systems are tough, long-lasting and incredibly easy to install.

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#### Waterloo goes urban



Waterloo Air Products' latest range of grilles features an 'industrial edge', to meet the requirements for air distribution in minimalist building design that calls for exposed ductwork. "Industrial styling by architects that features ductwork opens up new possibilities in air distribution," says Rick Edmondson, chairman. The Urban

Grille is manufactured from 1.6mm galvanised steel, and has been designed specifically for projects where exposed ductwork is a feature of a building's design. Three models are available, Urban Curve (UC), Urban Flat (UF) and Urban End (UE). A range of options includes removable cores, adjustable horizontal or vertical blades and blade pitches depending on the application and model required.

01622 717861 www.waterloo.co.uk

eng 242

#### Record year for Vortice ventilation in 2015



Vortice has seen double digit growth year on year since 2009 and 2015 was a record year for its ventilation system business. Product development at the company's Milan headquarters has been focussed on energy efficient ventilation systems for many years now. Energy efficiency is now well and truly at the top of the priority list throughout Europe and interest in the subject was heightened once more by the Paris climate summit in December. General manager Kevin Hippey said: "Vortice fans are easy to

install, less obtrusive and well designed – all of these things go together with their energy efficiency ratings to make them an obvious choice for the specifier."

01283 492949 www.vortice.ltd.uk

eng.243



## Zehnder ZIP – Raising the roof

Zehnder ZIP radiant ceiling panels offer many benefits which contribute to creating a comfortable, healthy and energy-efficient indoor climate.

Its lightweight construction makes Zehnder ZIP a perfect fit for refurbishment projects, facilitating ease of handling and installation. Proving both cost effective and responsive in operation; Zehnder ZIP radiant panels are ideally suited to rooms with high ceilings, such as production halls and warehouses, workshops, sports halls, garages, showrooms, maintenance halls and wet environments.

For full product information, download the Zehnder ZIP Planning document from:

www.zehnder.co.uk

**T:** 01276 605 800

E: enquiries@zehnder.co.uk

always around you



#### Beautiful Douglas Fir in North London home



Acclaimed architect, Russell Jones, has beautifully executed a living space in North London using Reeve Wood's Douglas Fir. The interior design for the new compact 2 bedroom mews house and enclosed courtyard at Wembury Mews, Highgate, used Douglas Fir 190mm Natural and

190mm Square Edge. To order a sample of Douglas Fir Natural or a sample box with a range of the latest colours, please contact Reeve Wood.

01553 776 835 www.reevewood.com

enq.245

#### Kallisto invests in new technology



Kallisto, the pre-cast concrete spiral and helical staircase division of Milbank Concrete Products, is delighted to announce it has invested in the latest technology to provide customers with a bespoke product, tailored to suit the individual needs of all domestic or commercial requirements. Manufactured utilising leading European technol-

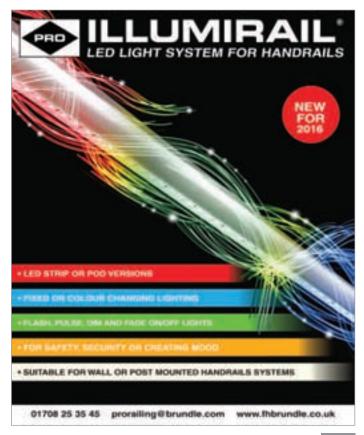
ogy, Kallisto stairs can be designed and adapted to meet all design requirements at an affordable price. Whatever your design, the finished Kallisto stair adds value and intrigue to your project providing a spectacular central feature. Each staircase is bespoke, with the rise, going and width able to be customised to suit an extensive range of projects and applications.



enq.247









#### Polyflor's flooring brings style to RED5 Shop



High design vinyl flooring from UK manufacturer Polyflor was chosen to create a modern look for gift and gadget retailer RED5 in its store at Princes Quay Shopping Centre in Hull recently. Tapping into the growing trend for concrete effect floor coverings, Expona Design luxury vinyl tiles in Dark Concrete

were installed throughout the shop floor area. Developed for heavy commercial environments, the Expona Design range of luxury vinyl tiles features 28 stunning wood, stone and abstract effect designs, including a number of concrete options with surface embossing for added authenticity. Samples of Expona Design luxury vinyl tiles can be ordered free of charge by contacting Polyflor.

0161 767 2551 www.polyflor.com

ena 251

#### Solus Ceramics new tile range



Solus Ceramics has launched a brand new and exclusive range of futuristic, three-dimensional wall tiles that challenge the idea of traditional interior design and decor. The new Dimensional range features stunning space age and contemporary patterns that enable the cre-

ation of wonderful abstract feature wall designs. With varying three-dimensional designs, the imaginative decoration allows architects and designers to create an array of complex patchwork arrangements or regular repeated patterns. The range is available in a chic core palette of grayscale colours including white, off-white, grey and black. In addition to the central monochrome colours, the Dimensional range is also available in two gold and silver metallic versions.

0121 753 0777 www.solusceramics.com

eng.25



#### Yeoman Shield completes the picture at Pinderfields Hospital



Cofely GDF SUEZ in conjunction with Consort Healthcare and Mid Yorkshire NHS trust engaged with Yeoman Shield to improve the durability and sustainability of key areas within Pinderfields Hospital in Wakefield, West Yorkshire. Working on the prospective of offering a more pleasant and non-clinical looking environment to patients, staff and visitors, the external entrances and gateways to the departments of the hospital are decorated with printed graphics using aesthetically pleasing colours and designs. However, by the very nature of a busy hospital building used 24/7 the movement of trolleys, beds, equipment and footfall results in wall coverings at low level becoming subject to a high degree of wear and tear damage over a relatively short period of time. The solution was Yeoman Shield Imagery with the concept of bespoke shapes and designs inlaid in a protective wall panel to blend with the existing wall coverings. Once agreed upon, Yeoman Shield's contract department diligently set about copying images and dimensions from the original printed graphics. This was then brought to the in house CNC machining department who replicated the shapes in FalmouthEx 2.0mm thick wall panels. The colours were matched for both the blue and green areas from their extensive colour range.

0113 279 5854 www.yeomanshield.com

eng.254

#### Saracen triples orders from new clients



Saracen Interiors is starting the year with a forward order book that is bulging with new business. With a high percentage – traditionally 70 per cent – of its contracts coming from repeat business, the workplace interiors consultant has announced that it has increased its orders from new clients up to three times compared to 2014 figures. Saracen was awarded several key projects

in the last 12 months, the most prestigious of which was the design and fit-out of Vintners Place on the bank of the River Thames for Tata Communications. Saracen was awarded the contract on the strength of its design reflecting the client's vision of a mobile and flexible working environment.

#### Altro sets the bar high at university



Altro safety flooring and hygienic wall cladding is providing the highest standard of safety, hygiene and aesthetics for athletes at the University of Bath's £30 million Sports Training Village (STV). There has been major investment in improving the facilities at the STV, including a £1.6 million

refit to the swimming pool, which included Altro Whiterock<sup>TM</sup> hygienic wall cladding in the changing area. Altro Whiterock<sup>TM</sup> White is the hygienic alternative to tiles that's impact resistant, grout-free and easy to clean. All Altro safety flooring products, offer sustained slip resistance for the lifetime of the product, keeping your risk of a slip to just one in a million.

01462 489516 www.altro.co.uk

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#### Well-chosen balustrades and handrails



Balustrading is an essential part of any design. A statement piece can add the wow factor to any scheme, and SG System Products Ltd, a leading UK designer, manufacturer and installer specialist of handrail and balustrades, offers a portfolio of premium quality pieces. Its recently launched Illumine handrail comes complete

with discreet LED inserts, providing direct lighting to stairs, and can be specified on the Stargard, Sentinel and Citadel handrails, plus all its balustrade products. Sentinel is a stylish stainless steel balustrade that is available in a range of infills, and Stargard, a DDA-compliant warm-to-the-touch handrail, comprises of a tubular system made from galvanised steel and sleeved with 4mm thick PVC.

admin@sgsystems.co.uk www.handrailsuk.co.uk

enq.258

#### Sika ComfortFloor 3000 – limitless choices



Available in an expansive range of colours to meet a wealth of aesthetic requirements in public and commercial buildings, **Sika** ComfortFloor\* 3000 is the new high performance base for the market leading Comfortfloor\* Decorative range of resin flooring. A two

part, self-smoothing polyurethane resin, ComfortFloor\* 3000 is the new substrate within the Sika ComfortFloor\* Decorative range. Developed to offer low Volatile Organic Compound (VOC) levels which improves health and safety conditions during the floor installation process, this easily applied, high performance liquid can even be used to create two tone floors by mixing colours during application to help realise the most modern creative concepts.

0800 1123863 www.sika.co.uk/flooring

enq.259

#### Formaldehyde free options from AkzoNobel



In 2014 formaldehyde was reclassified as a Carcinogen Category 1B. As a Category 1 carcinogen, the use of formaldehyde has now been regulated by the Carcinogen and Mutagen Directive in EU workplaces. Bearing in mind the EU workplace changes that are

about to be foisted on a host of manufacturing sectors, **AkzoNobel** are more than ready to meet the challenge head-on with a range of products that addresses the changes, providing a range of solutions to meet and surpass the new industry-wide standards. AkzoNobel has a range of solutions to help businesses meet these new challenges and has been ranked number one on the influential Dow Jones Sustainability Index (DJSI) for the fourth consecutive year.

01254 687950 www.sikkens-wood-coatings.co.uk

enq.260

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#### Corian®Textura panels for Retail Design Expo



For the first time at the Retail Design Expo (9-10 March) CD UK will be showing new Corian\* Textura Panels designs Ripples and Eyelet, expanding the range of surface choices to inspire designers and fabricators working in the retail sector. CD UK will have six large panels on display showing a variety of different textures and patterns and colours together with a retail display highlighting back panelling. Ideal for any retail setting

and suitable for whole wall installations or to protect painted or papered walls, the panels can be backlit to produce ethereal effects and atmosphere, with beautiful, effective results. Combined with white or coloured LED lighting, Corian Textura Panels provide added functionality and style for schemes of any size.

0113 201 2240 www.cdukltd.co.uk

enq.261

#### Create endless design possibilities...



The Synergy Series from The Nicholls & Clarke Group makes it easy for the designer, housebuilder or home owner to use a mix of materials, colours and elements throughout their project with the confidence that each room can have a change of colour, trend and style, but where all components will work

beautifully together in harmony with colours and tones that complement each other perfectly. The range combines porcelain, ceramic, mosaic, glass, woods, paints, grouts, sealants, shower trays and furniture in co-ordinating hues and tones, available in different sizes and textures in order to create an enhanced effect greater than that of their individual appeal.

#### Equip to change (lives)



Designing a couple of extra fittings into a space will ensure wheelchair-accessible toilets are fully compliant, not only with user requirements and Building Regulations, but equality law too. So advises Clos-o-Mat, one of Britain's leading specialists of away-from-home assisted accessible toilets and washrooms. Installation of

an adult-sized changing bench and hoist into a wheelchair-accessible toilet helps ensure more inclusive compliance. And, often, no extra space is required: a wall-mounted changing bench will fold flush against away, and the hoist is ceiling mounted. Clos-o-Mat can provide design advice, then supply all the equipment, if necessary install and commission it, and subsequently service & maintain it.

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0161 969 1199 www.clos-o-mat.com

## The Magrini family is now complete...

- ✓ New, contoured contemporary design
- ✓ Unique hinge construction eliminates finger traps
- Choice of colour to suit any project
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Withstands static loads in excess of 100Kgs

✓ Hygienic, easy-clean surface



MH42 Horizontal Baby Changing Unit





MV64 Vertical Baby Changing Unit



MT80 Countertop Baby Changing Unit



MC75 Stainless Steel Baby Changing Unit











## Is your washroom flushing money away?

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www.cistermiser.co.uk

#### Paiova 5 from Duravit



**Duravit's** Paiova 5 bath by EOOS focuses solely on individual comfort. With two different backrest slopes, Paiova 5 offers the choice between an ergonomic sitting position and an especially flat reclining position – for bathing with someone else or relaxing alone. The design of Paiova 5 is the result of a symbiosis between a corner bath and a freestanding

bath. EOOS developed the new geometric form by taking a wall-hugging version and rotating it out into the room. The result of this ingenious transformation is a sculpture that succeeds in transferring the ergonomics of the bath's interior to a pentagonal exterior. Paiova 5's meticulous details ensure extraordinary comfort.

0845 500 7787 www.duravit.co.uk

ena 267

#### Hansgrohe extends Select technology



Hansgrohe extends its popular Select technology to the wash basin with its new mixer range Talis Select. The flow of water is turned on and off by pressing the Select button instead of using a conventional lever. Hansgrohe's Talis Select technology is purely mechanical and works by means of an especially developed cartridge. It

controls the water temperature and turns the flow of water on and off by turning the valve. This added convenience requires no electricity or other devices in the base cabinet. The new mixer joins the existing portfolio of Hansgrohe Select showers and thermostatic controls to offer the complete Select bathroom.

01372 465655 www.hansgrohe.co.uk

enq.268

#### Maxwood's new prism mirror box



With an innovative mix of multifunctional design, concealed storage and sleek styling, the new Prism Mirror Box System from Maxwood Washrooms reflects the aesthetic and functional needs of modern commercial washrooms. Maxwood's vanity units with hinged mirrored panels make the most of wall space, offering attractive, convenient

storage for paper towels and soap dispensers ready for refilling and maintenance purposes. The Prism Mirror Box is equipped with gas strut hinges for effortless access, while the minimalist mirror panel design complements the contemporary styling of today's washroom interiors.

#### Back to black



Kemmlit has introduced a special edition of its Classic Cell cubicle system featuring a stunning solid black crystal coat varnish finish which is scratch resistant, easy to clean and maintain. Smooth surfaced doors, concealed edges and supporting legs produces an ultra-modern design that creates the

impression the cubicles are floating. Innovative high quality aluminium 'handle bars' housing LED vacant/occupied indicators, long life 3 roller hinges and a robust 42mm solid metal construction ensures this cubicle system is ideal for any washroom environment.

#### Pland Stainless to supply Liverpool hospital



Pland Stainless has been appointed as the stainless steel supplier for the new Royal Liverpool Hospital with completion scheduled for 2017. It is to supply stainless steel sinks, slop hoppers, janitorial units and scrub up troughs for this prestigious new development. Pland Stainless, who recently joined the Made in Britain campaign to promote its British

manufacturing base, is celebrating this prestigious contract win. "As a British manufacturer we are delighted to have been selected and being based in the North of England, just a short distance from the site makes good logistical sense too." Said Pland Managing Director Steve Duree.

0113 263 4184 www.plandstainless.co.uk

enq.271

#### One stop shop for all things showers



MX Group offers a true 'one stop shop' for all things shower related with the UK's largest range of shower trays, a huge selection of thermostatic shower valves, electric showers, enclosures and shower screens, brassware and shower accessories – the range is huge.

The quality is excellent and prices keen – for products offering outstanding performance. Take a closer look at the company website or ask for your own copy of the MX Collection catalogue – call MX Group.

01684 293311 www.mx-group.com



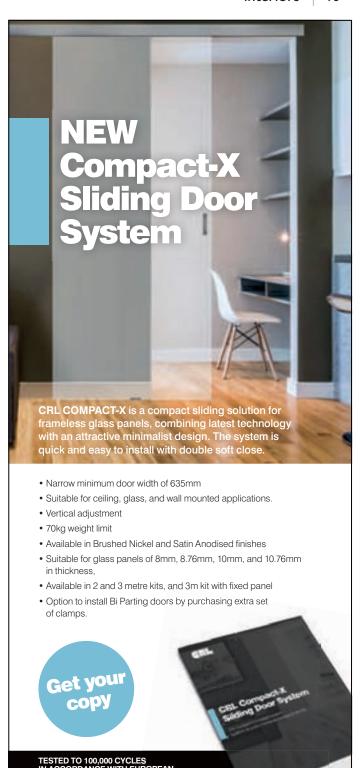


#### X4L specifies the Duŝo

Following a successful trial of Horne Engineering's Duŝo shower column at its home club in Castleford, Xercise4Less gym operator will now install the Duŝo as standard in its new clubs. Xercise4Less is one of the UK's fastest growing budget gym operators. It has a strong and valuable brand and ambitious plans for expansion – around 20 clubs due to open in the first half of 2016. Horne is delighted to have been selected to partner with X4L as they embark on this phase of growth. The Duŝo has proven itself for its unique and modern looks, water and energy saving features, ease of operation and accessibility of componentry for cleaning and maintenance. Available in 4 trim colours (on/off paddle and spray plate), X4L were naturally drawn the yellow option that matches closely with their brand. Quality and value are key aspects of the Duŝo design: it's strong, yet simple, durable and cost-effective over a maximised lifespan – a perfect match for X4L's brand attributes! Recent openings featuring the Duŝo include X4L Shrewsbury, Rugby and Southend.

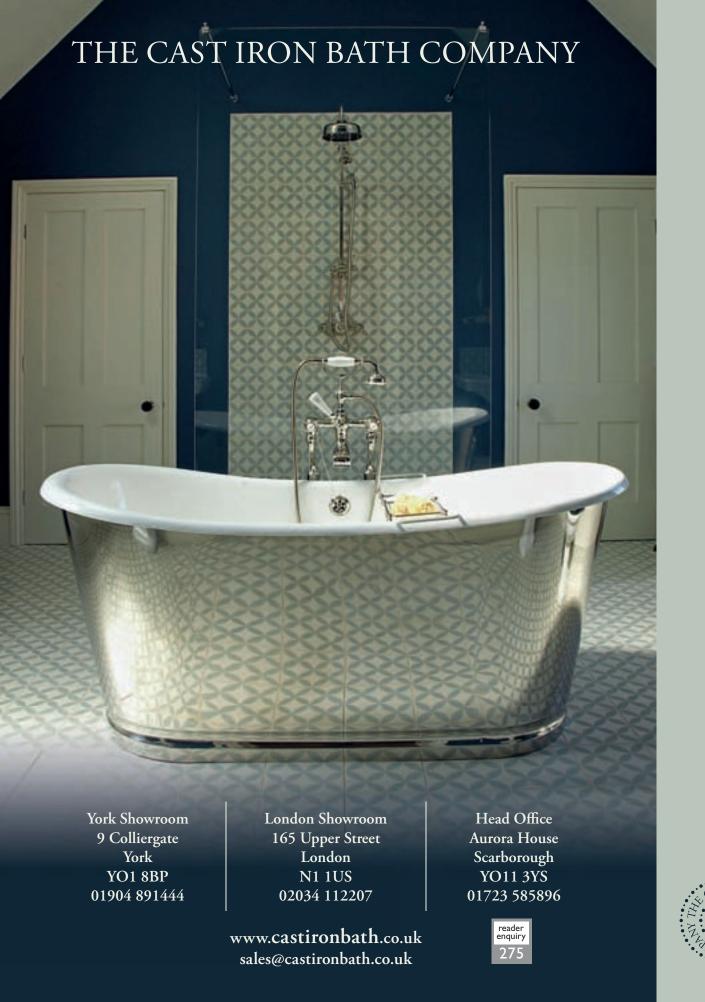
01505 321455 www.horne.co.uk





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#### The cast iron bath revival

"What comes around, goes around" Well, that's certainly the case with cast iron baths, as ever increased demand pushes the market to a second coming, and those at its heart continue to enjoy a cast iron renaissance. But why cast iron baths? Why choose cast iron over the modern-day alternatives such as acrylic or even plastics? What makes cast iron baths so special? By Samuel Jepson of Hurlingham

f course there is more than one simple answer, there are quite a few reasons and by knowing the differences between cast iron and its alternatives may well establish why some people and companies won't accept any imitations and take a great deal of pride cast iron baths.

When it comes to the bathroom nothing beats the heritage and charm of a cast iron bath.

It's hard to replicate the authentic bathing experience that comes from using a free-standing bath made from genuine cast iron and lined with true vitreous enamel. So what makes that so?

Firstly, cast iron is a solid and very hardy material, made in a time-honoured and labour intensive process – it's this very attribute and hard wearing nature that leads it to be significantly longer lasting than acrylic or plastic counterparts.

It wouldn't be uncommon for a cast iron bath to outlast several generations! I'm sure you've seen the odd very old cast iron bath being used in fields for animal feed/water troughs – whilst we think this is quite sad in many respects, it also serves to demonstrate their incredible longevity. If the good old British weather takes years and years to render one pretty much useless, imagine how long one would last if it's looked after and cared for?

Secondly, compared to acrylic and plastic baths, cast iron is incredibly damage resistant. Indeed we firmly believe that it would take a concerted and determined effort to chip or mark cast iron, let alone break or permanently alter or damage the integrity of a cast iron bath.

A quick search for (sacrilegious) videos online, will throw up a few removal videos and they perfectly show how much effort is required to break a cast iron tub, and, what's more, that's with large sledge hammers, determination and brute force! Certainly not for the faint hearted!

The damage resistance means also means the bath will appear newer for longer instead of being susceptible to looking tired or in need of a repair or a facelift. How many times have you seen certain products that despite relative structural integrity and longevity, develop a beaten up or worn-out appearance that weakens the entire aesthetic or overall effect?

Thirdly, the maintenance of a cast iron bath is relatively minimal, a quick wipe with a damp cloth followed by a dry *Continued overleaf...* 



cloth is all that is required to prevent the build-up of mineral deposits, or to remove any soap/bathing product residue, that's it, and this is usually all that is required after use.

Finally, the thermal dynamic properties or heating aspects of a cast iron bath serve to reinforce the aforementioned positive points.

Certainly the case with newer 'repro' baths, the use of better production methods and smarter casting technology have resulted in higher grade material, greater efficiency, better reliability and a higher level of insulation than that found in other types of baths. A cast iron bath retains the heat for longer than non-metal alternatives, therefore producing a 'hotter-for-longer' bathing experience and in the midst of winter you can't wish for anything better than a hot tub to soak in for hours and hours.

#### Cast iron outside, what should be on the inside?

Broadly speaking there are two interior coatings that are normally used for cast iron baths, both are a form of enamel but that is where the similarities stop.

The quickest and cheapest option is painted enamel and it does exactly what it says on the tin, a 'paint' that air dries to a hard surface, usually in a white finish that mimics the properties of enamel.

'A cast iron bath is more than a product, it's a design icon, it's historic, it's versatile, it's pragmatic and economical and, what's probably its crowning glory, it's a sound investment'

The other option is vitreous enamel, in essence genuine vitreous enamel is a highly resistant and strong substance made by fusing powdered glass at extremely high temperatures to a surface, usually metal, thus creating a highly durable layer.

Vitreous enamel is hard, chemically resistant, and scratch resistant, does not fade under ultraviolet light (sunlight) and cannot burn.

It's no exaggeration that cast iron baths will last generations when cared for properly, and genuine vitreous enamel will likewise remain in place for many, many years with minimal maintenance.

#### In conclusion...

A cast iron bath is more than a product, it's a design icon, it's historic, it's versatile, it's pragmatic and economical and, what's probably its crowning glory, it's a sound investment.

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#### monza aluminium column radiator

Ideal for low temperature renewable systems
Ideal for high pressure systems
The latest patented european technology
A unique aluminium radiator design
Half the weight of steel
82 vertical and horizontal sizes
Delivered within 3 working days



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#### Expona LVT creates a simple statement



Expona Design luxury vinyl tiles from leading vinyl flooring manufacturer **Polyflor** were chosen to create a unique design floor at The Balloon Tree Farm Shop and Cafe in York recently. With the concept for the store refurbishment developed by The Creative Suite of York, this simple yet effective floor design using contrasting

wood effects helped to highlight the displays in this family run farm shop. With 28 eye catching wood, stone and effect design options available to choose from in the Expona Design range, individual designs and patterns can be easily created by simply laying different designs next to each other, or Polyflor's in-house design team can create even more complex bespoke flooring designs.

0161 767 2551 www.polyflor.com

enq.282

Heradesign brings visual order to the Mess



Heradesign ceiling rafts from Knauf AMF were specified by HLM Architects for the new Junior Ranks Mess building at Beacon Barracks in Stafford. Each raft consists of individual Heradesign panels fitted to a concealed grid to give an almost continuous appearance. The rafts create a striking feature thanks to their distinctive woven

surface, which in this case is matched to two RAL colours. Heradesign can be specified in an unlimited number of colours. Thermatex Antaris ceilings from Knauf AMF Ceilings are fitted in the shop and other communal areas. Antaris is a white mineral tile with a very high light reflectance of up to 88 per cent.

0191 518 8600 www.amfceilings.co.uk/heradesign

enq.284

#### Get smart with Firex



Firex optical and ionisation smoke alarms, and heat alarms offers substantially lower, maximum mains energy consumption of less than 15mA – in the order of just 3.5W. This is less than many household items left on standby and represents a 70 per cent energy saving over previous models, ensuring significantly lower running costs and improving sustainability credentials. Another Firex innovation is the

introduction of long-life lithium battery back-up options for all three sensing technologies, alongside the usual loose battery and integral rechargeable battery versions. Firex alarms can also interconnect with **Kidde's** 4MCO and 4MDCO hard-wired CO alarms, using the unique 'Smart Interconnect' feature.

01753 685096 www.smoke-alarms.co.uk

eng.283

#### Expona Flow is a class act at Reigate Grammar

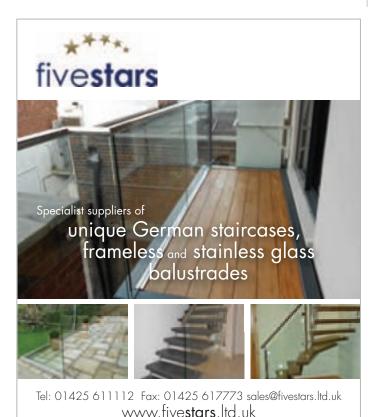


Beautiful wood effect vinyl flooring from Polyflor's Expona Flow range was recently selected to refresh the look of a school hall at Reigate Grammar School in Surrey. 400m² of Expona Flow sheet vinyl flooring was installed by Brampton Flooring for the school hall refurbishment. The warm and inviting Blond Oak design,

which authentically replicates the natural beauty of timber planks, was chosen to enhance the large, bright space of the hall. Suitable for heavy commercial environments in the education sector, this durable vinyl floorcovering is also enhanced with Polyflor PUR, Polyflor's exclusive and robust polyurethane reinforcement which is cross linked and UV cured to provide superior cleaning benefits.

0161 767 1111 www.polyflor.com

eng.285

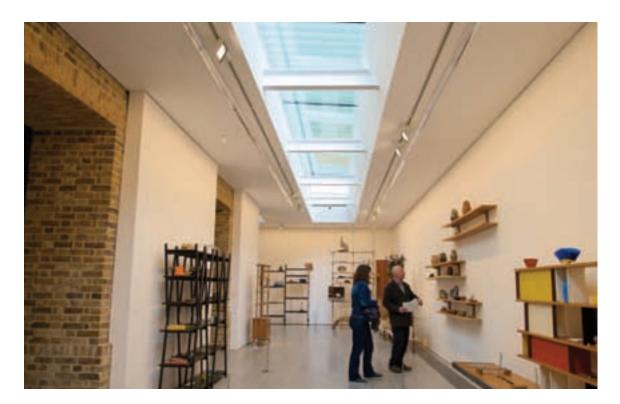




enq.286

## Safe and beautiful: Non-invasive fire detection technology

As a society, we increasingly desire both beautiful buildings and safe ones. However, often the devices we use to protect both our property and ourselves spoil the very thing we hope to protect. From metal bars covering windows, to hand rails on stairs there is often a need to compromise the aesthetics of a building to improve its safety. Dr. Daniel Waldron, product manager at FFE explores



I ire detection is another example of this, where the small mounds of point detectors are seen across the ceiling of most buildings, like a series of inverted molehills. However, this does not have to be the case. Indeed, two specialist technologies are ideal for the discreet installation of fire detectors, which allow the building designer to meet fire installation requirements without compromising their design.

#### Beam smoke detection

Beam smoke detectors are an ideal choice for many aesthetic applications. They work by sending out an IR (infrared) beam of light, which can cover a large protected area (usually 1500  $\rm m^2$  per device). Should a fire start, the smoke created will block the light beam, which in turn signals a fire. As an IR device, the light produced is invisible to the naked eye, making this a strong

technology for covering wide, open areas. It also does not have any associated infrastructure, other than the beam detector itself (typically, a hand held object about as large as a camera). Many other technologies require extensive pipe-work across the protected area, which is costly to both purchase and install. For aesthetic installations, a tried and tested solution is to recess the beam detector beyond sight, gaining all the coverage but hiding the actual unit away from users.

Beam smoke detectors are available in two broad categories: end-to-end systems and reflective systems. For aesthetic installations, the end-to-end system is the unit of choice as it can operate through very narrow gaps. There also exist in the marketplace beam detectors that can cancel out the effect of sunlight – these units are perfect for atria and other areas where there is a lot of glass/reflective surfaces.

Continued overleaf...

#### Aspirating smoke detection

Aspirating smoke detection (also known as air sampling) is a fire detection technology for server rooms and other clean environments. It operates by installing a series of air sampling pipes across the protected area that 'sample' the air, sucking it into a central detector. The detection this technique can achieve is very impressive, with high sensitivity to smoke. The technology is now quite mature, with models available on the market that can distinguish between dust and other false alarm sources.

When installing aspirating detection, it is possible with a little forethought to create a detection system that blends in perfectly with its surroundings. The central detector may be placed in a cupboard or utility room, removing it from the protected area. The pipework however, is a bit more of an issue. Aspirating pipes need to have direct access to the area protected, and so must be physically present. Fortunately, there are two common solutions to this issue. The simplest solution to this is to paint the pipe the same colour as its surroundings (or camouflage it as part of the heating system etc.). While effective, it is very important that the air sampling pipe is placed in the correct part of the room (smoke rises, so a floor level pipe is not ideal), and most importantly, that the pipe itself is not blocked by the paint. The second solution is significantly more elegant, but ultimately more costly. It is possible to place the aspirating smoke detector in voids or false walls/ceilings. This will reduce the sensitivity of the unit,

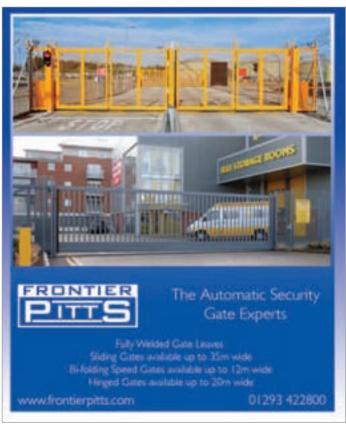


increasing its response time but will hide the pipework away from all users.

#### Conclusion

There are methods and technologies available for fire protection of aesthetic sites, but they require care and forethought to get the best combination of safety and beauty. The fire detection industry is full of experts that can help you get the best coverage, without compromising the aesthetics of a design. Everyone wants to inhabit safe, beautiful buildings – the fire industry is here to help.

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## SE Controls' smoke and natural ventilation solutions for Pretoria's Agrivaal building

he new energy efficient Agrivaal building in Pretoria's Tshwane Central Business District is using advanced natural ventilation and smoke control solutions from SE Controls to maintain a comfortable indoor environment while improving safety by ensuring escape routes are smoke free in the event of a fire.

Designed by PKA Architects for the National Department of Public Works (DPW), the new 10-storey office block integrates with the original 75 year old Agrivaal building, a site of national heritage importance, with the final structure providing 21,650 m² of rentable space, as well as a restaurant, coffee shops and 545 underground car parking spaces.

The new building incorporates a range of energy saving technologies as part of its design and construction, including recycled materials, water harvesting, energy efficient lighting and the use of natural ventilation, which enabled it to achieve a

prestigious 4 Green Star rating from the Green Building Council of South Africa.

SE Controls Africa, based in Durban, worked closely with the project's fire and engineering consultants WSP Consulting Engineers from the initial concept stage, as well as ventilation contractors, Robertson Ventilation Industries, to develop the combined high level smoke and natural ventilation solution for the building.

The system incorporates an NVLogiQ carbon dioxide sensor and environmental monitor for natural ventilation, as well as a SHEVTEC smoke control panel and 10 SECO N 24 40 chain actuators, which automatically open and close the centre pivot windows in the atrium to vent stale air or smoke from the building.

In normal operation, NVLogiQ sensor monitors the temperature, carbon dioxide levels and relative humidity and signals the actuators to incrementally open or close the windows, if the



parameters go beyond preset points. In the event of a fire, the SHEVTEC control panel takes a signal from the building's fire and smoke alarm system, which overrides the natural ventilation system and triggers the actuators to fully open the window to vent smoke from the building.

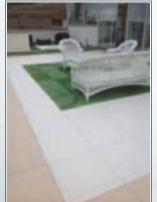
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## Alternative paints can tick all the boxes

What do you look for in a paint? Performance and aesthetics, for sure. But what about sustainability? Environmental and health benefits? Is it possible to tick all the boxes? Until relatively recently, the answer was no. But a new generation of paints has changed all that. Colin Jones, technical sales advisor at Earthborn, explores the options and takes a closer look at external masonry

aking their cues from traditional paints of the past, a few manufacturers have developed advanced techniques to blend the best of the old with the new. Gone are the solvents and acrylics of conventional paints. In their place are environmentally friendly materials blended with advanced technology to maximise performance.

Today, you can specify water based paints that combine outstanding performance with sustainability. There is no longer a compromise to be made in terms of durability, breathability, aesthetics, weather resistance, environmental credentials, health or sustainability.

As a relatively new phenomenon, there is a lot of confusion in the market about 'natural' or 'eco' paints. So, what do you need to look for?

#### Breathability

It is now widely recognised that breathability is vital to preventing problems with moisture in walls.

Many walls, even in relatively modern buildings, can suffer from damp, be it rising, penetrating or due to other causes. With nowhere to go, damp will eventually blow paint and plaster or render off a wall and damage the underlying material. The more breathable the paint, the better it will safeguard the fabric of walls.

#### Practicality

In addition to breathability, it's important to consider ease of use, covering power, durability and, in the case of exterior paint, a tough weather resistant finish.

#### Aesthetics

Paint is, of course, a highly visual material. So it's important to find a range that offers pleasing finishes and colour palette. Some eco friendly paints now offer the full BS4800 colour range.

#### Health and the environment

The two potentially harmful components in paint are volatile organic compounds (VOCs) and acrylic softeners, both of which are given off during painting and for many years after



Pictured: A former merchant's house on the seafront in Orkney is a tough test for silicate masonry paint. The owner says sea spray can drive over the house and other paints soon flaked off but, two years on, he remains happy with silicate masonry paint. A bespoke shade was created to match the town's conservation colour palette © Earthborn

application. Harmful ingredients can also find their way into drains when washing out brushes and groundwater when paint tins are disposed of in landfill.

As well as being harmful to the environment, they can cause chest complaints, aggravate allergies and cause sick building syndrome.

High levels of VOCs generally are associated with oil based paints, but they are found to varying degrees even in water based paints. The EU limit for paints to be classed as minimal VOC is 30g/L. However, this is relatively high compared to the value that environmentalists recommend and which can be found among the new breed of paints. It is advisable to seek out those containing a maximum of just 0.5g/L VOC.

#### Sustainability

Paint can impact on a project's sustainability: not just its environmental ratings but, most importantly, whether it will safeguard the fabric of a building for the future. A durable, breathable paint can prevent damage, thereby significantly reducing the maintenance lifecycle of walls.

Continued overleaf...

Pictured: Paddington Cemetery's West Lodge is built mainly of stone and has always been painted. Its refurbishment included silicate masonry paint to give a long lasting, breathable and weather resistant barrier © Earthborn/Peter Kyte

When specifying for sustainability, the most stringent standard is the EU Ecolabel. It certifies that products make minimal impact on the environment throughout their lifecycle - during manufacture, use and disposal - and do not harm the health of people using or living with them.

#### Options for external masonry

Exterior masonry is probably the toughest test of all for paint as it needs to be weatherproof, good looking and durable. Generally, the options are seen as either acrylic based, conventional paints or traditional limewash. But there's a third option, silicate paint, which offers a highly effective alternative.

#### Film forming paints

Conventional, acrylic based masonry paints form a film that prevents water ingress, but also prevents a wall from breathing. Micro-porous film forming paints are a recent innovation, containing inorganic fillers to enable some breathability. However, both are susceptible to cracking due to differential thermal movement between the paint and substrate. Their lifespan tends to vary from five to 15 years.

#### Limewash

Limewash is the traditional, breathable option for exterior masonry. But its longevity is poor, requiring regular repainting, and it is a harsh material for decorators to use.



#### Silicate paint

Widely used in mainland Europe, silicate paints have been around for more than 100 years. They contain potassium silicate which penetrates the masonry and forms a tough chemical bond with underlying materials. The bond contains pores that are large enough for the wall to breathe but small enough to prevent water ingress.

The result is an extremely durable, weather resistant yet breathable paint that can significantly reduce the maintenance lifecycle of walls. Today's silicate paint systems perform for 15 years and more. They can be used on most mineral based surfaces including stone, brick, concrete, pebbledash, plaster and render.





#### Sandtex Trade makes a splash at Lido Ponty



Sandtex Trade has been used to deliver protection and style to an exciting restoration project in the heart of South Wales. The Grade II listed Art Deco treasure, situated in Pontypridd, proudly balances its past with the future. Original turnstiles and wooden cubicles have all been maintained, with brand new features

added including three heated pools, a sun terrace, visitor centre, function room and indoor and outdoor changing facilities. As part of the restoration works, Sandtex Trade Eggshell X-tra was specified for the development. The team from Crown Paints' Specification Services worked closely with the Architects to match the colours to the original shades of the 1920s.

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#### Lugano paving from Brett Landscaping



The cool, contemporary lines of the Lugano flag paving from **Brett Landscaping** have helped to create an impressive yet welcoming exterior to the prestigious Royal Southern Yacht Club in Hamble, Southampton. The Lugano flag paving range helped to create the required modern, elegant, and clean space around the yacht club. With a high level of slip resistance, helping to keep visitors safe, as well as exceptional durability, Lugano also met the functional requirements in an area with a high level of pedestrian traffic. Over the 600m² area a combination of

both Silver Grey and Graphite Grey Lugano paving has been used.

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#### Cladit - cladding repainting made easy



New water based Cladit from **Bradite** has been formulated to revitalise metal cladding. A water thinned polyurethane semi-gloss acrylic finish for a long lasting protection it provides an easy to maintain finish that offers good colour retention and weathering resistance. It can be successfully used to

upgrade the cladding and extend its useful life by up to 10 years and can be recoated easily even after years of exposure; It provides an easy to maintain finish that offers excellent colour retention, UV resistance and excellent weathering protection for all types of cladding including steel, galvanised steel, aluminium. Fiberglass and concrete. It is available in full BS 4800 and RAL Colours.

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#### Trailflex improves grip for steep golf club path



Trailflex, the highly flexible porous paving system from Langford Direct Ltd. has recently been specified at Heysham Golf Course to improve safety for its members. Trailflex has proved to be an ideal paving solution for a wide range of public applications due to its highly porous and flexible qualities. The rubber and stone mix material is intelligently designed to flex

to 90° without damaging the performance or appearance of the surface and is particularly suitable for applications to public footpaths, cycle routes and car parks where tree root intrusion is present. Trailflex will simply adapt to the contours of the terrain and will flex to allow the movement of the roots in search of moisture, while maintaining a solid and attractive surface.

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#### Transformational paving

With the recent completion of public realm regeneration at the east London Brownfield Estate, Interpave has substantially updated its case study on this exemplary project. Brownfield includes modernist architect Ernö Goldfinger's listed, 'brutalist' concrete high-rise blocks – including Balfron Tower – from the late 60's and early '70s. The project is characterised by a uniform application of concrete block paving on un-adopted areas, with feature paving announcing estate entrances and around key buildings. Here, concrete flags in strong colours are arranged in bands to create a bold linear feel. Then, throughout the scheme silver-grey concrete setts – with enhanced granite surface adding sparkle – highlight footways, while charcoal setts identify private amenity space. Edges and transformations are defined by enhanced-finish concrete kerbs, some laid flush, others raised. This is an exemplary scheme, demonstrating the importance of considered, detailed design and execution in the public realm. Interpave has just published an updated case study exploring this project, which can be downloaded via the Interpave information resource from the company's website.

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## RECYFIX® MONOTEC: A new monolithic drainage system with a high attenuation volume

auraton Limited has introduced into the UK, RECYFIX\* MONOTEC, its new high capacity channel system for the surface drainage of pavements, bicycle routes, car/van parks and roadways in and around residential, commercial and light industrial areas where the channels need to have high lateral strength, are capable of withstanding continuous compressive loads and where ease of installation is a major consideration.

The RECYFIX\* MONOTEC one metre long channel component is of a sturdy monolithic design where the grating and the tongue and groove linking system are integral to the channel moulding. The whole unit is made of tough, virtually unbreakable polypropylene (PP) formulated to be very resistant to daily temperature fluctuations from frost conditions to strong sunlight, including the Ultra Violet (UV) spectrum. PP is naturally resistant to de-icing salt.

Complying with the requirements of EN 1433, the PP is given its UV resistance by adding just sufficient carbon black as a stabiliser so that the structural strength of the material is unaffected and a consistent appearance is maintained.

MONOTEC channels are offered in two nominal grating widths of 100 and 200mm, both suitable for a loading category of up to Class D400. The 100mm channels are available in three overall heights; 230, 280 and 380mm and provide channel cross-sections of 190.5cm², 245.5cm², and 355.5cm² respectively. The largest 200mm channel, which only weighs 16.2kg, has a cross-section of 746.1cm2 and so has an attenuation volume in excess of 74 litres per meter.

The three sizes of 100mm channels can be arranged in a step-fall arrangement with different channel heights connected by special transition adaptors that ensure the water drains away smoothly and quietly with the increased flow





velocity playing a considerable role in cleaning the channel run. The step-fall arrangement may be desirable where there is a high risk of silting as the increased flow will help wash debris towards the system's Inspection/Trash Box.

RECYFIX® MONOTEC channels are certified in accordance with EN 1433. The CE symbol, external monitoring and the conformity declaration are the guarantee of a maximum technical and qualitative standard.

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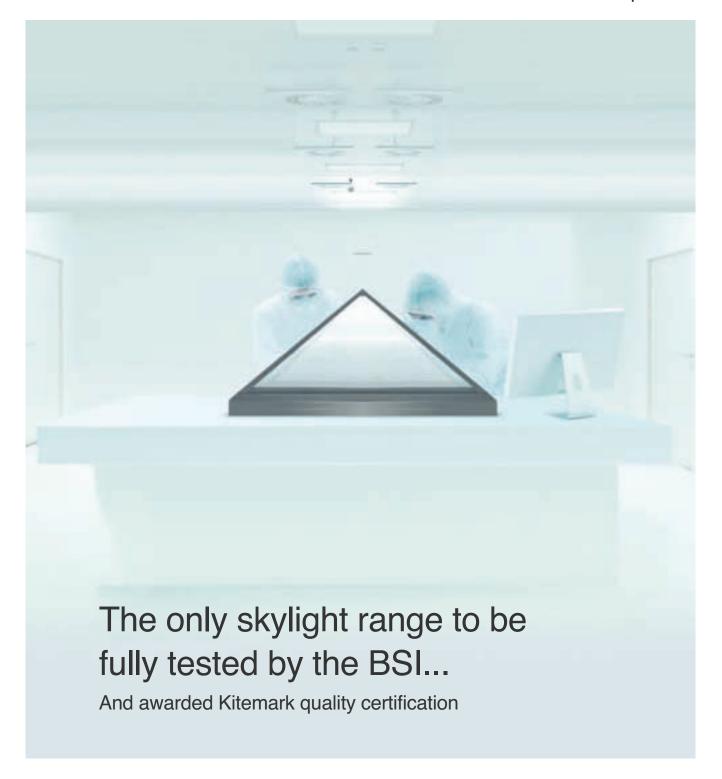
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