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FSC® – Who Cares?

By Martin Taylor – Managing Director with Encasement.

Since the Forest Stewardship Council was founded in the early 1990s, its 'Chain of Custody' certification process has become recognised globally as the primary standard for sustainable sourcing of timber.

Yet, although the UK government's 'Timber Procurement Policy' guidance, which in essence, requires that only independently verifiable legal and sustainable timber should be used on housing stock, there are indications of inconsistency and a lack of awareness of this, particularly in local authority and housing association property refurbishment projects.

Where's the issue?

Tens of thousands of LA properties are maintained and refurbished every year, often requiring boilers and heating system pipework to be concealed. For more than 25 years, pre-formed and pre-finished plywood boxing has gradually been adopted as the preferred solution for many LAs and HAs, together with contractors, as it saves time and money compared to site made alternatives.

However, even with the move to sustainable timber, government procurement guidance and FSC certification, most if not all, LA pipe boxing specifications still do not specify the use of

products manufactured from FSC certified legal and sustainable timber.

In addition, as FSC pipe boxing costs no more than its non-FSC equivalent, price is clearly not an obstacle to either its specification or supply. Also, under the scope of their own sustainability policies, contractors and merchants should be purchasing and supplying FSC products in preference to non-FSC alternatives. Some would even argue that they should go further and take the responsibility of advising specifiers that legal and sustainable products are available.



Time for change

Price is clearly not a barrier to change, which should help stimulate interest from specifiers and contractors alike to adopt pipe boxing manufactured from independently verified legal and sustainable timber.

LAs, HAs, contractors and merchants are probably just as focused on sustainability and sustainably sourced products, as we are at Encasement, but, for some reason it's not being applied to the use of pre-formed pipe boxing, which is worth millions of pounds to maintenance contractors, heating engineers and merchants nationally.

Throughout the supply chain everyone has a responsibility for sustainable procurement, so in our view a lack of awareness or understanding about these obligations is no defence, especially as existing government guidance has set out the policy that should be adopted.

So, what is the answer to the question of FSC, who cares? "We all should."

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With the introduction of a new UK Test Standard for HIU's and advances in technology, the District Heating market is progressing rapidly. We have therefore updated our CIBSE accredited CPD seminar, to provide the opportunity to explore the topic in depth. Here we identify some of the key technical considerations that are fundamental to improving user satisfaction levels, and the overall efficiency of the network.

Our seminar entitled "Next Generation Heat Networks – Key Considerations" is accredited by The Chartered Institution of Building Services Engineers (CIBSE) and provides credits towards consulting engineers' Continuing Professional Development (CPD). The seminar includes topics such as:

- Regulations and Guidelines
- Heat Network Design Principles
- Heat Interface Units (HIUs)
- Network Pipework Sizing
- Central Plant - Capacity Calculation
- Metering, Billing and Revenue Management
- Remote Surveillance

The seminar is ideal for M&E consultants, developers and housing associations, and can

be held at client's premises or at the Evinox Energy offices in Chessington, and at a time convenient to you. Our speakers are highly experienced in Heat Networks with relevant professional qualifications. A certificate will be

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Decorative casing solutions – the big cover up



Porsche West London

The interiors of many buildings, as well as some exteriors, would be considerably less attractive and practical, if it wasn't for column casings and interior wall lining solutions.

A bold statement perhaps, but column casings are an essential part of contemporary building design and perform a vital function by providing an effective, stylish and immensely versatile method of concealing structural steelwork, concrete columns and in some cases, building services.

While there may be very few people who will stand back to admire laminated plywood column casings in schools, hospitals and retail outlets or brushed stainless steel wall cladding in a prestige office building or hotel, they play a key role in the aesthetics of countless building environments.

The use of column casings has grown dramatically since the early 1980s where their primary role was purely to cover structural supports with comparatively little consideration as a method of adding visual

decoration to a building.

Since then, the demand for wider choice and increased aesthetics from design conscious architects, interior designers and specifiers has been a key influence on Peterborough based decorative casing specialist, Encasement, whose range has expanded and diversified considerably over the past ten years to become the most comprehensive available in the UK.

The company's complete range includes 'Circa' and 'Quadra' which are manufactured from pre-formed plywood, alongside its 'Forma' metal casings, 'Polyma' GRP and 'Gypra' GRG product ranges. 'Metza', a specialised solution that provides mezzanine floor columns with up to 2 hours fire protection is also available.

Versatility is a key feature behind a diverse range of projects where the column casing's design has been used to accent an interior or provide a unique aspect to a building. This high degree of freedom enables major brands, particularly in the retail sector,

to specify colours that not only adhere to their brand guidelines but also add to the customer experience.

Encasement's 'Forma' metal casings, for example, provide specifiers with a diverse range of options and can be specified with diameters from 250mm up to 1000mm or as square, rectangular and hexagonal forms, as well as unique custom profiles.

While all of Encasement's column casings are suitable for interior use, its 'Polyma' GRP products and 'Forma' range, which can be manufactured from aluminium or stainless steel, are also widely used on exterior projects due to their inherent weather resistance.

Recent projects, such as Tetrosyl's new head office reception, Birmingham Dental Hospital and Winchester College, together with Porsche West London's prestige showroom, Kia's recently opened flagship premises on London's Great West Road and Debenhams' major store at Cheshire Oaks, all perfectly illustrate the versatility of 'Forma' column casing solutions.

At Tetrosyl, the casings are a unique aerofoil section, Birmingham's Dental Hospital uses a 25 metre high semi-elliptical design, whilst at Porsche, Kia and Winchester College, the casings are circular, but use



Tetrosyl



distinctly different finishes to meet individual project specifications. In addition, the Winchester casings are used both on the building's exterior, as well as its interior.

Alongside 'Forma', Encasement's 'Circa' and 'Quadra' pre-formed plywood column casings ranges were the first to be introduced by the company and are still arguably the most popular, as they provide specifiers and contractors with an unrivalled selection of finishes, which includes plain, laminated or real wood veneers.

While 'Circa' is available from Encasement as a plain casings for on site painting and decoration, by far the most popular casings are those finished with decorative laminates, which not only resist damage, scuffs and scratches, but also provides the specifier with a diverse palette of finishes including plain colours, wood grain and metallic, as well as textured and real wood veneers, to name but a few.



Dame Kelly Holmes Centre

Both 'Circa' and 'Quadra' are manufactured from FSC® certified plywood and Encasement is the UK's only supplier and manufacturer of pre-formed plywood pipe boxing and decorative casing products that holds an FSC® 'Chain of Custody Certification' from the Forest Stewardship Council. This makes the products compliant with sustainability codes and environmental procurement policies.



Winchester College

Designed solely for interior applications, 'Circa' and 'Quadra' are used in almost every building type from education, retail, hotel, sports and leisure to health sector and commercial office buildings. As a result, the choice of sizes available is also wide, allowing specifiers to choose not only circular and square, but also extended circles and rectangular profiles, which use additional infill panels to give greater flexibility while ensuring they are still easy to install.

Recent Quadra projects include Farnborough's 6th Form Centre and the Dame Kelly Holmes Sports Centre, while among the many 'Circa' installations, Gatwick Airport's South Terminal, Liverpool University and Gateshead International Stadium are major installations.

Alongside the company's column casings, its 'Vecta' system provides a high quality solution for interior wall linings, bulkheads and reveals. Launched just a few years ago, the system has been widely used in retail, education and commercial buildings, such as Tesco, South Bank University and Prêt à Manger, as well as prestigious office developments, including Wellington House and the Carmine building in Paddington, London.

Encasement's Managing Director, Martin Taylor, commented: "Column casings provide a perfect mix of practicality and

aesthetics and we've taken a lot of care to ensure our range meets both of these key criteria while also ensuring that we always remain competitive and deliver high quality products. Our entire range has been configured to provide the widest possible choice as well as being easy to specify."

He added: "The Vecta interior cladding system enhances our building interiors offer and allows specifiers to source a range of specialised interior finish products from a single company with high levels of expertise and experience in this sector. We also have our own contracting arm, which enables us to offer a full supply and install service to support contractors."

Encasement's latest 'column casing solutions' e-brochure is available for download from the company's website and covers every product in the range as well as providing details on materials, sizes and finishes available alongside an extensive technical information section.

01733 266889 www.encasement.co.uk



Birmingham Dental Hospital

Expertise from SE Controls forms part of innovative energy saving building research

A new research project being undertaken by the University of Sheffield into the use of predictive modelling to save energy in non-domestic buildings, is drawing on expertise and data from leading smoke and environmental ventilation specialist, SE Controls, to help support the study.

Funded by a grant from the Engineering and Physical Sciences Research Council (EPSRC), the new research programme explores the potential of making energy savings of up to 25 per cent through the development and use of Model Predictive Control (MPC) in commercial buildings.

The project will use advanced machine learning techniques, a branch of artificial intelligence, to construct a building control system that produces good internal conditions while using the smallest amount of energy possible, allowing more sustainable design and usage.

This knowledge and expertise of



controlling natural ventilation was one of the reasons behind SE Controls being invited to form part of the project steering group for the MPC research.

SE Controls' Design Manager, Dr. Chris Iddon, who will attend the steering group meetings, explained: "Non-domestic buildings, such as office spaces, currently account for 18 per cent of the UK's carbon emissions and between 40-90 per cent of this

is energy consumed in the heating and cooling of buildings. Also, data from The Carbon Trust estimates that around £500 million worth of energy is wasted by commercial buildings every year, so this research into more effective building control and management is essential."

In addition to the involvement of SE Controls, academics from the university's departments of Civil & Structural Engineering, Electronic & Electrical Engineering and School of Architecture are also working with other leading industry partners, including Arup, Buro Happold, LCMB and Trend Control Systems as part of the process of exploring methods to make MPC economically viable for building energy management.

Further information on SE Controls' products, solutions and projects can be obtained online by emailing or by telephone.

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Understanding laminated glass

Structural applications are one of the glazing areas offering the greatest added value for glass processors, but it is important to avoid improvisation and risks according to Michel Palumbo and Maria Teresa Mazzucchelli, glass safety service designers for Vetrostrutturale.

Sometimes, glass designers focus too heavily on the aesthetic and formal aspects of projects without going into the detail of how laminated glass behaves, especially in a moment of catastrophe. This is partly why the latest technical standards and the most recent technical documents require understanding of the behaviour of laminated glass after a partial or total glass catastrophe.

For many years, the role of polymer interlayer in the overall behaviour of laminated glass was not taken into account given polyvinyl butyral's minimum or negligible shear transfer between panes of glass. PVB is without doubt the most popular plastic interlayer in the production of laminated glass for structural and non structural applications.

Today, however, there are extremely interesting laminate interlayers on the market with substantially more sheer behaviour than that offered by traditional PVB. These polymers primarily include the so called structural PVBs (DG41 by Solutia and Trosifol ES by Kuraray) as well as Kuraray's Sentry Glass Plus and Evasafe by Bridgestone.

Compatible

What makes these polymers worthy of note is not only their greater rigidity to shear stress but also the stability and retention of this prerogative in the medium and long term, and in temperature ranges that are totally compatible with the standard requirements for creating laminated glass walk-on glass, roofs, steps, railings and walls/shop windows.

Correct design must globally consider the aspects influencing the mechanical behaviour of glass for structural applications and take into account the behaviour of the "laminated glass and relative securing systems" not only in conditions of ordinary functioning (SLS) or overload conditions (ULS) but also in cases of partial (CLS) or total (PR) breakage of the laminated glass in the least favourable environmental conditions.

The temperature of the load application is a key parameter in determining the behaviour of laminated glass. As the temperature increases, the rigidity of the laminated glass diminishes because of the reduced rigidity of the plastic interlayer. All plastic interlayers alter their behaviour according to temperature, some considerably (standard PVB and structural PVB), others in a far less

obvious manner (Evasafe and DG41).

At temperatures above 20°C with medium and long duration loads, the behaviour of Evasafe is especially interesting since its stiffness remains virtually constant whereas that of PVBs (both ordinary and structural) continue to decrease with time and temperature, falling rapidly below the values of Evasafe.

If the behaviour of the polymer varies substantially according to temperature, the overall behaviour of the laminated glass will also vary. At the design phase, it is necessary to consider the most serious conditions for the laminated (glass plus plastic interlayer) in standard conditions.

Another parameter that impacts strongly on the behaviour of plastic interlayers (and consequently that of the laminate containing them) is the duration of the load application.

For applications envisaging the long-term application of loads, and having to size the laminated glass in the most demanding duration and temperature conditions, it may prove effective, in order to reduce the glass thickness in play, to use a polymer with reduced variability in stiffness over time and/or with temperature, rather than a plastic that performs well in ordinary conditions but is far less stiff in the more extreme cases.

A third extremely important design aspect when choosing a plastic interlayer consists in assessing so-called environmental robustness, which is a polymer's ability to withstand environmental attacks, expressed essentially by assessing resistance to water, humidity and UV rays over time.

Another important aspect of the design stage is the behaviour of the laminate glass in the event of partial (one sheet in the laminate) or total breakage of the laminate glass. In the case of structural applications, this aspect clearly cannot be overlooked. Safety criteria in the event of a glass catastrophe can be schematically defined as follows:

- Collapse Limit State – the need to guarantee structural safety by foreseeing that every glass element for structural applications can sustain the external design loads, even with a broken pane.
- Post Breakage behaviour – "the need to limit the risk of immediate post-breakage collapse". This aim, obvious to all skilled designers, must be achieved by defining



suitable combinations of glass and plastic interlayer, in keeping with the chosen securing system.

Design awareness

The role of alternative plastic interlayers to the PVB ones available on the market, and the availability of technical design documents published in Europe in recent years, means that it is today possible to design laminate glass with formerly unthinkable awareness. This new design awareness calls for the combination of the need for resistance with design loads and post breakage safety criterion.

The introduction of the Collapse Limit State and Post Breakage concepts have rooted the awareness that laminated glass is far more than a combination of simple panes of glass and that its global behaviour depends on the securing systems as well as the plastic interlayer.

In order to improve the behaviour of laminated glass, or to increase the sizes but with the same thickness (a crucial aspect in the architectural sphere), it is possible to consider interlayer polymers that make a major contribution to the transfer of shear stress between panes subjected to external actions. The intrinsic features of these polymers for structural applications are also very interesting in terms of contribution to the Post Breakage behaviour they are able to provide to the laminate as a whole.

Today's designers have the option of using several types of laminated glass thanks to the presence on the market of various types of interlayer with diverse specifications that may be more or less suited to a specific situation.

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RIBA APPROVED CPDS NOW AVAILABLE AT LATHAM'S LONDON SHOWROOM



James Latham, one of the UK's biggest independent panel and timber products distributors, is now offering two RIBA approved CPD seminars at its impressive new showroom in the heart of London's architectural and design community.

Showcasing an enormous range of Latham's exclusive and semi-exclusive materials, the product specification showroom – which is located at Suite 301 of the Business Design Centre in Islington – has been created to

inspire architects and designers, provide expert advice and enable them to keep abreast of the latest trends and developments in surface solutions.

The two CPD seminars, cover *Acrylic Based Solid Surface* and *Performance Door Blanks*. Both have been developed in conjunction with the RIBA, and offer a unique opportunity for all construction and design professionals to gain up-to-date knowledge and enhance personal proficiency as well as earn

CPD points.

The *Performance Door Blanks* CPD focusses on five key learning aims and addresses the concept and significance of performance door blanks. It looks at the appropriate documents that make up Building Regulations and its limitations and conflicts. It also allows those attending to develop an appreciation of door testing and rating for such things as fire and acoustics and demonstrates how this is driven through the increasing demands of legislation as well as looking at some of the developmental areas in door blanks.

Created specifically for architects and designers, the *Acrylic Based Solid Surface* CPD seminar provides a greater understanding of this versatile material and its potential applications and assists with specifications and material choices. The session covers a number of areas including; raw

materials, an overview of sheet manufacturing techniques, an overview of fabrication techniques, plus commercial and residential applications including thermoforming and translucency.

Steven Dennard, Specification Manager for Structural Products as well as the Group Door Manager, commented, "Both of these seminars provide educational learning to architects and other specifiers and have been assessed by the RIBA so carry the prestige, good name and industry respect that the RIBA, with its 175-year heritage, provides.

He added, "All the material we offer is rigorously assessed within strict best practice guidelines by the team of assessors – all of whom are RIBA members and practising architects themselves – to ensure that the seminars are as current and relevant as possible."

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New Simpson Strong-Tie catalogue

The 2017 edition of Simpson Strong-Tie's flagship catalogue is here. Alongside the UK's largest range of connectors for timber and masonry construction, sit over a dozen new products and several range extensions, including: Post Bases; I-Joist hangers; Angle Brackets; Structural screws and Masonry Ties. The catalogue is also brimming with installation advice and performance characteristics and safe working loads. Sales Director, Jon Head explains: "It's been a busy time for Simpson Strong-Tie, with all new ranges for Light Gauge Steel and CLT construction, as well as our significantly expanded nails and screws ranges. We've really pushed the boat out to increase our core range though, which, coupled with our rapid made-to-order service." The latest version is available from Simpson Strong-Tie on request and can be downloaded from the website.

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The perfect heating solution where space is a premium and low costs required

With much discussion and debate on how to solve the UK's housing crisis, recent Government plans are considering Modular Homes as a solution. The design and build of modular homes might be simple and affordable but what heating source will be used to keep them warm? A gas grid connection or renewable heating source may not be economical therefore Electric Heating could be the answer.

The Electric Heating Company's SlimJim electric boiler could be perfect for Modular Homes. The compact design of the SlimJim boiler makes it ideal for heating applications where space is at a premium. The Slim Jim is a fully controllable electric flow boiler which is designed to maximise cupboard space. The SlimJim provides the flexibility and controllability that a gas fired central heating system offers. Using standard pipe-work, conventional wet system radiators and thermostatic radiator valves the boiler, being 100 per cent efficient and fully modulating, will take the same amount of time to heat the

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CRL Stone has launched a new comprehensive range of engineered quartz surfaces, created to meet the demands of modern living. Hard wearing and easy to care for, CRL Quartz is ideal for the kitchen and bathroom where durability and flexible design are paramount.

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Offering a versatile design solution appropriate for any setting, CRL Quartz is available in a choice of 32 colours, with a polished finish. In thicknesses of 20mm and 30mm, the surface comes in an extra-large format slab measuring 3.2 x 1.6 metres, allowing for greater consistency in design over large spaces such as kitchen worktops.



Commenting on the launch of CRL Quartz, Simon Boocock, Managing Director of CRL Stone, said: "We are delighted to be bringing our own range of quartz surfaces to market. Responding head on to current trends in kitchen and bathroom design, the surface is a versatile, easy to maintain solution that will last the test of

time. The quality of the product is backed up by CRL Stone's excellent customer service and support, built on our 20 years' experience in the industry."

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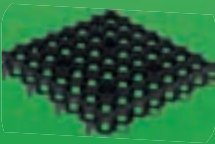


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The Architects Datafile (ADF) website is an online provider of past and present products and news items for the architect or specifier. architectsdatafile.co.uk is a one-stop source for all the latest press releases providing any visitor with access 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

Simpson launches BIM Library



Leading construction connector manufacturer **Simpson Strong-Tie** is pleased to announce that a wide range of high quality Building Information Modelling (BIM) content is now freely available for download from its website.

Hundreds of 2D & 3D Revit files containing item codes, dimensions and links to the product web pages have been added to our already extensive CAD library, providing the data you need for our timber, masonry and steel connectors in an easy to use format.

Ian Harrison, European Technical Director for Simpson Strong-Tie says, "With Building Information Modelling set to shape the future of construction, we've made it a priority to ensure we meet our customers' BIM requirements. Our Revit files are compatible with a range of CAD software packages, making it really simple for specifiers and construction professionals to include our extensive range of connectors in their 3D building models." BIM Revit files can be found in the resources on the website.

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Innovative insulation technology used on luxury cinema

Work is well underway on the development of luxury cinema construction all over the UK.

S and B EPS Ltd are delighted to be the manufacturing partner, alongside American company Stadium Seating Enterprises and EOMAC UK Ltd., providing state of the art DryFit™ PREFoam™ Stadium Seating Riser System solutions for the expansion of the auditoria seating areas.

The latest project located in the heart of Sheffield's 'The Moor' shopping district, will become host to a brand new, nine screen multiplex cinema, as well as accommodating a number of new shops and restaurants. The focus is to provide an opulent social hub in an area currently undergoing significant re-development.

Standing by his customer promise of 'you'll always have the best seat in the house', CEO of the Light Cinemas, Keith Pullinger insists that "every seat is designed to be extra wide, with a generous amount of legroom as standard". Customer comfort, well formulated sightlines and good disabled access are all a major consideration in the company's contemporary cinema experience.

Naturally, on a build of this scale, it was crucial to specify a rapid, yet robust method of construction for the expansion of the auditoria seating areas and Stadium Seating Enterprises' innovative DryFit™ PREFoam™ Stadium Riser System, installed by EOMAC Ltd and locally sourced and manufactured by S and B EPS, proves to be the perfect solution.

Supplied in various thicknesses and weighing an average of half a kilo per cubic foot, the modular polystyrene blocks are 100 per cent recyclable and extremely lightweight, keeping manual handling to a minimum.

Pre-engineered in the United States and pre-fabricated locally in the UK, the EPS insulation is supplied cut to size and each piece numbered, so they can be easily



manoeuvred through pedestrian doorways and areas still undergoing construction.

The polystyrene foam blocks are delivered per auditorium and are coordinated with the installation crew at EOMAC on site for a just-in-time delivery schedule to minimize downtime of the theatre and maximize efficiency of the installation. A full set of detailed shop drawings are prepared and supplied to the installing contractor by Stadium Seating Enterprises so they are aware of the intended location for each piece of EPS block.

Installation couldn't be simpler or quicker either. The pre-numbered blocks slot together like a jigsaw puzzle and are adhesively and mechanically fixed on the riser and tread of each level. EOMAC has experience installing these riser systems on multiple projects throughout the United States and Canada and has now brought this technology to the UK alongside Stadium Seating Enterprises, manufactured by S and B EPS out of Cramlington.

The insulation is then encapsulated in two layers of 18mm plywood, ready to accept the finished flooring surface.

A great plus point on these types of schemes is that because of the geometry of the blocks, the weight is distributed evenly across the surface and no point load is achieved.

S and B's Managing Director Darren Smith, said: "This is a very exciting project for S and B EPS to be involved in and hopefully the first of many.

"Although the technology has been used on stadia seating across the United States for a number of years, it is still a unique concept in the UK. The collaboration between

Stadium Seating, EOMAC and S and B has evolved over a period of four years, with much collaboration having taken place during that time.

"It's particularly satisfying that from a simple introductory Skype call, we are now manufacturing and witnessing the installation of their PREFoam™ EPS systems on local UK based projects and theatres.

"The flexibility and speed of installation is absolutely key to this system's success. Since all systems are custom designed and manufactured for each individual application, the fact that they're of a modular nature means that they're ideal for either new construction or retrofit and renovation situations.

"Steel, concrete and EPS components can be made in virtually any height or depth and can easily be adapted to conform to virtually any platform design, shape or configuration in any cinema, theatre, lecture hall, worship facility or performing arts auditorium.

"The possibilities are endless and I've no doubt that this method is set to revolutionise the design and construction of staged seating projects in the UK in the future".

The Light Cinema, Sheffield, is due to open its doors in Spring 2017.

0191 250 0818 www.sandbeps.com



Hauraton drainage systems installed at London Gateway Port, Berth 7

With globalization and the ever increasing levels of world trade, container ships have increased in length, draught and capacity.

The London Gateway Port provides 2,700 metres of quay, seven deep-water berths with depth alongside of 17m, 24 giant quay cranes and an annual capacity of 3.5 million TEU (Twenty foot Equivalent Units).

Much of the London Gateway Port's container transfer and handling area is concreted so effective surface water drainage was a major consideration to ensure efficient all-weather operation.

Hauraton supplied a total of 140m of RECYFIX® HICAP® 100 and 300 high capacity channels to drain surface water from Berth 7, developed by Pentalver for DP Ports, the HICAP® drainage system is able to accept a total water volume of 21,994 litres.

As the main HICAP® channel components



are made from 100 per cent recycled composite Polypropylene (PP) they are not susceptible to corrosion. By affording a superior overall hydraulic performance, the HICAP® system generally allows engineers and contractors' flexibility in surface design and installation, reducing the number of channel runs normally required to drain a given area. This reduction means less underground excavations, materials and

vastly reduced installation time. As there are fewer runs required, the surfaces strength is not compromised whilst future maintenance and cleaning is also reduced.

The Hauraton channels at Berth 7 were installed in one run so keeping the excavation work a minimum.

In addition to the HICAP® channel run a further 30m of FASERFIX® KS 100 and 150 were installed in access roads. These channels were fitted with 9mm slot ductile iron gratings and provided a loading category of Class E600. The FASERFIX® KS channel component is made from Fibre Reinforced Concrete (FRC) with galvanised steel pressings permanently moulded along their top edges, so with the gratings fitted, the unit's exposed surfaces are highly resistant to wear.

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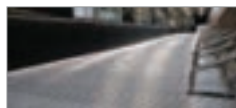


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Neaco decking provides cycle park



Neaco's Techdek aluminium decking has been specified for an innovative internal cycle park at the XYZ building, a cutting edge workspace in Manchester designed by Cartwright Pickard. Robert

Phillips, Associate at Cartwright Pickard, said: "We specified Techdek for the cycle ramp due its robust construction and the simplicity of its design – the modular nature of its construction, its excellent drainage capabilities and the ribbed profile for surety under foot. Its track record of being used on similar, high profile projects gave us the confidence that the product was suitable for the application."

sales@neaco.co.uk

Polyflor launches Secura luxury vinyl sheet



Polyflor, a UK residential and commercial vinyl flooring specialist, has launched its new Secura PUR collection of luxury vinyl sheet flooring, designed to create inspiring home interiors for modern living. Made in the UK, the Secura PUR range features 22 designs which authentically replicate the natural character of wood, stone and

abstract materials in a practical and durable sheet format. With 12 wood effects, nine stone effects and one abstract design in the collection, on-trend new additions include white and grey oaks alongside contemporary concrete and slate effects.

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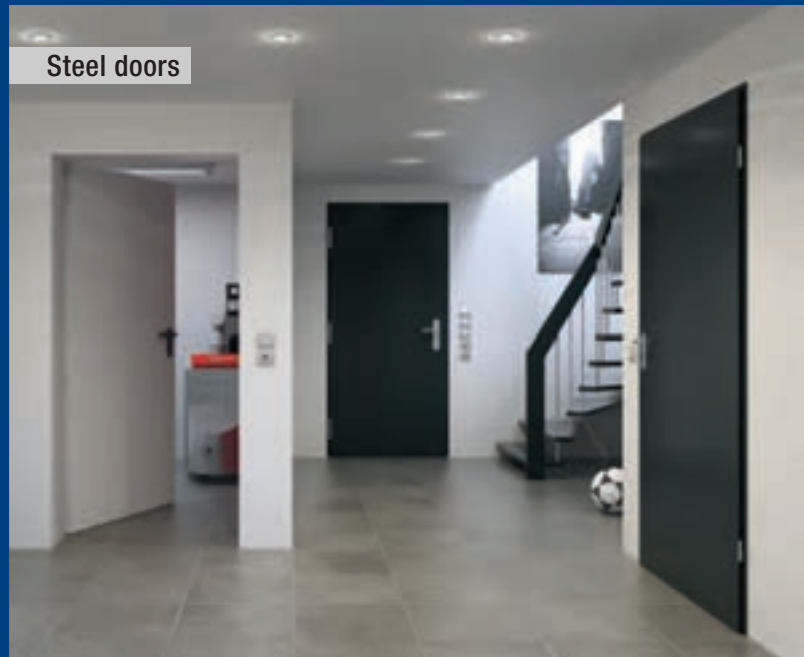
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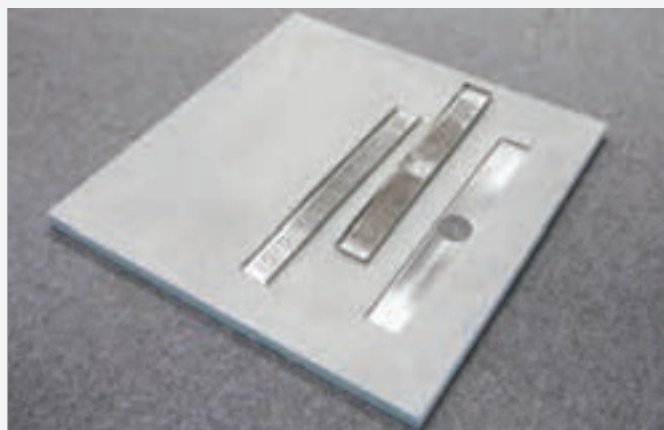
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Marmox Showerlay³⁶⁰ Drain

Marmox has added a new drainage solution to its range of Showerlay floor level shower bases, which has been designed to simplify the installation of plumbing in both new-build and refurbishment applications and is compliant with all relevant standards. Joining the company's extensive range of products, the new Showerlay³⁶⁰ Drain is fully rotatable to enable use in horizontal as well as vertical outlet connections – or any angle in between – for total flexibility. For even greater ease and adaptability of installation, the compact drain measures just 80mm deep with a 50mm water seal. It can be utilised with both of Marmox's Showerlay trays, which are tileable sloping bases for a shower area on either a wooden or concrete sub-floor. Two options are available: a 20mm or 24mm version which is supplied with a traditional square drain or a 40mm thick version which features a stainless steel linear drain. Both can be used to create level access showering areas, or wet rooms.

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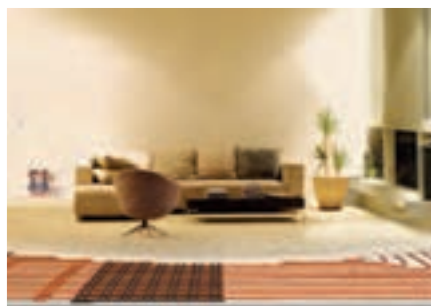
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It's time for stylish new air conditioning units using R32



Mitsubishi Electric has launched a new line-up of wall-mounted air conditioning units with a sophisticated, streamlined design and a comprehensive range of features to make stylish, energy efficient air conditioning available for countless small businesses. The M Series MSZ-LN range is the first product in the company's UK line up to utilise R32 refrigerant – which has a low global warming potential (GWP). Mitsubishi Electric will also launch further R32 air conditioning solutions throughout the coming year. In March 2014, the European Parliament passed the 2014 EU F-Gas Regulation legislation with the key objective of reducing F-Gas emissions by 79 per cent between 2015 and 2030. The overall intention is to cut the availability of hydrofluorocarbons (HFCs) with a high GWP. The F-Gas Regulations will have a major impact on the air conditioning sector and any option for the next generation of refrigerant gas must be able to meet the demands of this stringent legislation in reducing the environmental impact of HFCs. The MSZ-LN range offers a choice of four sizes from 2.5kW to 6.1kW, with four distinct indoor wall units which are available in various colours.

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High capacity surface water drainage for Primark Distribution Centre, Kettering

The Primark Distribution Centre, near Kettering was developed by London Metric Property Plc. Known as Thunderbird 2 the £77 million facility comprises a 93,000m² warehouse, some 5,000m² of office space and 50,000m² of hard standing with parking for 175 HGVs and 530 cars. A major earthworks operation was necessary to level the ground and create the vast plateau on which the building and hard standings were constructed. With such a large hard standing area an effective surface water drainage system was essential.

Having supplied high capacity surface water drainage channels for hard-standing areas at numerous distribution centres thorough out the UK, Hauraton were confident their RECYFIX® HICAP® high capacity channels would comply with the stringent specification asked for by the contractors.

It was decided to drain the hard standing area using four sizes of RECYFIX® HICAP®



– 100, 200, 300 and 680 because of their overall volume capacities. As well as straight runs of 100 and 200 channels, the 200, 300 and 680 sizes were installed in a step fall arrangement providing an enhanced water volume for these runs of 366,324 litres per metre (l/m). All the sizes supplied had fixed ductile iron, 14mm open slot inlets finished with KTL, a rust resistant coating. All 1229 metres of RECYFIX® HICAP® channel installed complied with loading category



Class F900 (900kN).

In addition some 200m of Hauraton FASERFIX® KS 100 channel with HEEL-SAFE ductile iron gratings were also installed in the site car parks requiring a loading category of Class C250 (250kN). The gratings were also specified with a KTL coating.

01582 501380

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All building companies are looking for ways to expand their business. Products to upsell to existing customers, opportunities to revisit previous customers and options to develop new markets – PVC cladding could be that opportunity. There has been a huge interest in external cladding products in recent years, partly driven by aspirational TV shows like Grand Designs where it seems that every new build project features cladding in some way. Timber is still popular but homeowners are now looking for more low maintenance options – many busy families have little time or skill for the on-going re-painting and repair that timber requires. Freefoam Building Products are specialist PVC manufacturers producing a wide range of long lasting, low maintenance cladding products. The Freefoam cladding range features a choice of a smooth woodgrain finish or Fortex® timber effect embossed boards in Shiplap, Double Shiplap and Weatherboard styles.

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Get creative with colour



Freefoam, a leading manufacturer of a wide range of innovative products for the building industry, announces the launch of a brand new colour roofline visualiser – an online tool to help choose the colour of fascia, soffit and guttering that is right for any project. A clear image of a roofline installation enables users to simply select from a colour swatch and get an instant representation of each colour on every element. With a wide range of solid colours and a stunning choice of woodgrain finishes Freefoam now give you the ability to bring colour to life before your eyes.

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Kalwall creates healthy shelter

Around eight million people a year are expected to be sheltering under Kalwall at the beautifully-designed new bus station at West Croydon. Designed by Transport for London Architects, this is an unusual example of how translucent Kalwall can offer many different advantages above its normal use for translucent traditional building cladding and rooflighting.

The brief for this project was to create a user-friendly waiting and assembly shelter to service the thousands of passengers using this important and busy transport hub linking the 150 buses an hour with the adjacent tram stop and West Croydon railway station.

The normal choice of construction for a translucent and weatherproof canopy would be to glaze the roof with glass. However in-house architect Martin Eriksson and the project team at TfL realised that Kalwall offered a better solution in this location which would not only solve the brief and contribute to a better design but would offer many other benefits over traditional glazing.

For example, since Kalwall is much lighter than glass it meant that the supporting



structure needed to be less strong and far less chunky. In addition, not only would the shelter be less high but the vertical supports would be less obstructive and open up a better view of the environment.

Unlike conventional glazing, highly insulating Kalwall is far more attractive than glass while eliminating shadows and glare and the stark contrasts of light and shade; improving the experience for passengers below.

Also, due to the way it diffuses natural daylight downwards and at night reduces vertical illumination and reflection upwards, it controls light pollution on the surrounding

high rise buildings. Soil and detritus are less obvious on Kalwall than on glass and maintenance and cleaning is much simpler because access scaffolding is not required and maintenance staff can safely walk across its surface.

One of the main attractions of specifying high performance Kalwall for conventional buildings is its unique effect on both the interior and exterior. Internally, rooms are flooded with diffused natural daylight which creates a stimulating and very attractive environment. Although translucent, it also offers the big advantage of privacy while the elevations appear crisp, simple and inviting. When illuminated at night they emit a very attractive ethereal glow.

Apart from being specified for all types of new build, Kalwall is increasingly used for the refurbishment of cladding or rooflights on aged buildings. Case studies and technical information are available from Structura UK Ltd.

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Window security – a clear solution

By Martin Oates – Commercial Director with SE Controls



Window security is a key design requirement with all market leading systems tested to the PAS 24 standard to meet the demands of the Secure By Design

(SBD) initiative and Building Regulations Approved Document Q (ADQ).

Automated windows that are utilised for ventilation strategies will also need to comply to the standard, which requires the actuators to resist 3000N of negative force when the window is closed. This is becoming commonplace in applications such as school refurbishment where facade automation remains a popular and cost effective solution of providing improved ventilation performance over manually operated windows.

The SECO N 24 25 twin actuator from SE Controls has successfully passed the PAS 24 test and in addition to presenting physical resistance

to intruders, it also provides a signal to the controller, should the window fail to close fully, to maintain the integrity of the security system, as requested by the SBD schools standard. Two locking points in one neat enclosure with programmable gasket relief optimise weather performance and security to meet BS 6375 parts one, two and three in addition to the PAS 24 test.

Bespoke fixing brackets and reinforcement to the window is often required to provide sufficient strength for the fixing, which is usually the weakest point of resistance, as the actuator provides two x 4000N of resistance to forced opening.

The ability to manufacture bespoke body lengths allows SE Controls to locate the locking points on different size windows exactly as tested, relative to the corners, to maintain consistency of performance and compliance. Test conducted with an actuator located at the centre of a vent will either not pass the test or can only be utilised for different widths.

Similar to EN12101-2, the fabrication and installation solution requires a process that is



audited by an independent notified body and must be re-tested annually.

If you have requirements for SBD or ADQ certified automated windows, please contact the SE Controls team for further information.

01543 443060 www.secontrols.com

RENOLIT EXOFOL PX Light Ivory



RENOLIT EXOFOL PX Light Ivory is added in to the RENOLIT exterior grade range as a stock range item. Light Ivory which is a yellowy cream colour (similar to RAL 1015) is a complementary addition to cooler Ice Cream B and warmer Cream White widening the scope for designers, home owners and installers. Cream windows have universal appeal creating a sophisticated and pleasant installation which suits both traditional and heritage windows alike and also most building exteriors from stone, buff, red or multi-brick. Windows in this colour area have the ability to portray an elegant high quality image which has led to the demand for cream coloured exterior films increasing year on year. Cream is now the third largest selling exterior grade solid coloured film sold in the UK market and with improved availability of Ivory Cream this is anticipated to grow further. Ivory Cream produced as a RENOLIT EXOFOL PX grade material is a patented advanced exterior film which also benefits from the addition of RENOLIT's solar shield technology. RENOLIT EXOFOL PX was developed to enhance weatherability, reduce heat build-up and extend guarantees periods in the UK.

01670 718222 www.renolit.com/exterior/en/sample-ordering

Great returns at St James' Place



St James' Place Wealth Management Group recently moved into their new £10 million phase II office building in Cirencester, which is equipped with a comprehensive solar shading and screening solution from **Levolux**. Having fitted an external solar shading solution for the original building, Levolux was invited back to develop a custom solar shading and screening solution for the phase II office building. The new office building features an abundance of glazed openings on all elevations. This helps to maximise daylight levels and provide occupants with good outward visibility. To complement the glazing, Levolux developed a solar shading solution comprising its Infiniti Fin system and Aerofoil Fins, applied externally, along with motorised internal Roller Blinds and Venetian Blinds. Five Aerofoil Fins, each measuring 200mm wide, have been incorporated into 60 horizontal panels, fixed at roof level. Together, the panels, which have a projection of 1.2 metres, resemble a 'halo' that encircles the building. In addition, Levolux utilised its Infiniti® Fin system, incorporating 300mm wide aerofoil-shaped fins, fixed horizontally to the building's south, east and west-facing elevations.

info@levolux.com

Trespa Pura NFC® meets all requirements

Located in Dungannon, the McAvoy Group is an off-site construction provider specialised in modular and panel system builds. Since 2015, it has been working with Trespa Pura NFC® cladding on several school projects across the country.

When The McAvoy Group was chosen to build the new Rise SEN School in Feltham, the project planning already included detailed requirements on the materials that had to be used to clad the façade. “The project had been passed by planning with a ‘timber effect’ composite board,” says Keith Anderson, McAvoy’s Contracts Buyer.

The cladding needed to be easy to maintain and to install, be available in various colours and to have a high impact resistance and colour stability. It also needed to have a fast delivery programme.

“Trespa Pura NFC® was one of the materials that could meet all the requirements. With Trespa, we had the expectation that this product would come with an excellent service



and client management,” explains Anderson.

As with other projects, The McAvoy Group was able to reduce the construction lead times for the Rise SEN School by using a modular build. The company considers this method to be the future of construction. “With the UK government’s 2025 vision for the construction sector, the strategy is 33 per cent lower costs, 50 per cent faster delivery timescales, 50 per cent lower emissions and

50 per cent improvement in exports. To achieve this, modular construction will be at the forefront of this change,” says Anderson.

For McAvoy, Trespa Pura NFC® proved an “excellent fit” for this modern method of construction. “With its ease of installation and flexibility, we are able to choose to fit the cladding within factory conditions when applicable, or we can install on site if required,” adds Anderson.

By working jointly with Trespa, the Dungannon based company managed to meet the tight timescales, from date of order to delivery of the product.

The Rise SEN School was completed in April 2016. Since then, McAvoy has finished three other modular school buildings clad with Trespa Pura NFC®. They are located in Salisbury, Dagenham and Lynch Hill, respectively.

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