

building construction design

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April/May 2018

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Rockpanel A2 facade cladding

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Richard Reeve to take Axim to new height

TPG, The Parkside Group Limited is pleased to announce that Richard Reeve, Sales Director will be exclusively looking after one of its major divisions, Axim Architectural Hardware.

Richard has been with TPG for 15 years and is excited to take the leading hardware brand to even greater heights. Richard said, "Axim is one of the most trusted brands in the industry for reliability and quality. Axim celebrated 30 years of business last year and having worked throughout the industry I know that the Axim TC-8800 series of Concealed Transom Closers is well known for its superb long-term performance and as part of TPG, Axim, is backed up by market leading delivery to its European wide distributor and partner network."

Over the last 30 years Axim has extensively developed its product range to include all the hardware that top quality commercial doors require. Richard commented that "Everyone knows the top performer the Axim TC Series

of Concealed Closers, however, I am not sure that everyone is aware of how extensive the Axim product range is. The Axim PR Series Panic Exit range is comprehensive, and the Axim Panic Exit Locking Handle is one of the most high-quality products I have seen which fits across the entire range."

The Axim branded product range includes Emergency and Panic Exit Devices that are certified to BS EN 179 and BS EN 1125, a range of handles including D-handles, Lever Handles, Pad Handles, Pull Handles and Tube Handles, Floor Springs which can take a door weight of up to 150Kg, Locks including Mortice, Dead Latch, Extension Flush Bolts for security slave doors.

The Axim TC-8800 Series of Concealed Transom Closer will fit most major manufacture's doors and has three different strengths. The TC 9900 is a universal closer which is ideal for repair and maintenance and where closers have failed, the TC9900 offers a fast solution without the need for costly repairs.



Offering innovative solutions has been at the fore of Axim and launching new products such as the Axim ES-2100 Electric Strike a remote access product that offers installers a reduction in installation and maintenance time. The Axim LK-2100 Reversible Deadlatch offers a non-handed solution which means that installers and distributors can reduce their stock-holding by only stocking one Deadlatch instead of two.

0208 685 9685 www.axim.co.uk

Coventry's Central Six Retail Park covers up with Encasement

Bespoke 'Forma' metal casings from Encasement are helping provide an aesthetic and practical environment for shoppers at Coventry's Central Six Retail Park by concealing structural support columns for a walkway canopy that runs the full length of the shopping area.

Central Six is a small out of town centre, which combines fashion retail, homeware and designer clothing stores with specialist shops, such as Hobbycraft and American Golf, as well as a fast food restaurant in 14 retail units.

As part of a recent refurbishment and facilities upgrade programme, Encasement supplied and installed 72 square column casings from its 'Forma' metal casing range, which were used to conceal the existing circular structural steelwork and provide a more contemporary look to the

retail centre.

Manufactured from durable 3mm thick aluminium and measuring 235mm square, each casing stands 3350mm high and is finished with an RAC 7022 Umber Grey PPC coating to not only complement the retail park's colour scheme, but also provide additional resistance to weathering and accidental scuffing.

Encasement's Managing Director, Martin Taylor, commented: "Our Forma aluminium casings are widely used in the retail sector in both interior and exterior applications as they provide immense design versatility and colour options, as well as being durable and resistant to weathering when used in projects such as Central Six."

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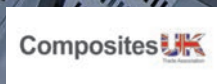
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McAvoy announces record year



The McAvoy Group, one of the UK's leading offsite construction specialists, has announced a record financial year, achieving a 10 per cent growth in turnover to £60m. The business is on track to achieve its target of £100m turnover by 2020 and its £10m investment programme is now well underway. McAvoy has also announced it is working on over £20m of new projects which includes office schemes for the Homes and Communities Agency in Northstowe, Cambridgeshire and projects for two pharmaceutical companies.

info@mcavoygroup.com

JSP Springfit™ mask offers an unrivalled fit



JSP has launched the new Springfit™ fold flat disposable mask with a unique endoskeleton structure which guarantees each mask keeps its shape, increasing performance and maintaining rigidity. This integrated spring feature allows facial movement ensuring the mask offers a secure face fit and seal during speech or movement of the jaw. The new Springfit™ is extremely comfortable with adjustable straps so the mask can be fitted comfortably to all head sizes and shapes.

The foam area around the inside of the mask ensures the mask is comfortable to wear and the welded nose piece gives the mask a tighter fit ensuring a good face fit.

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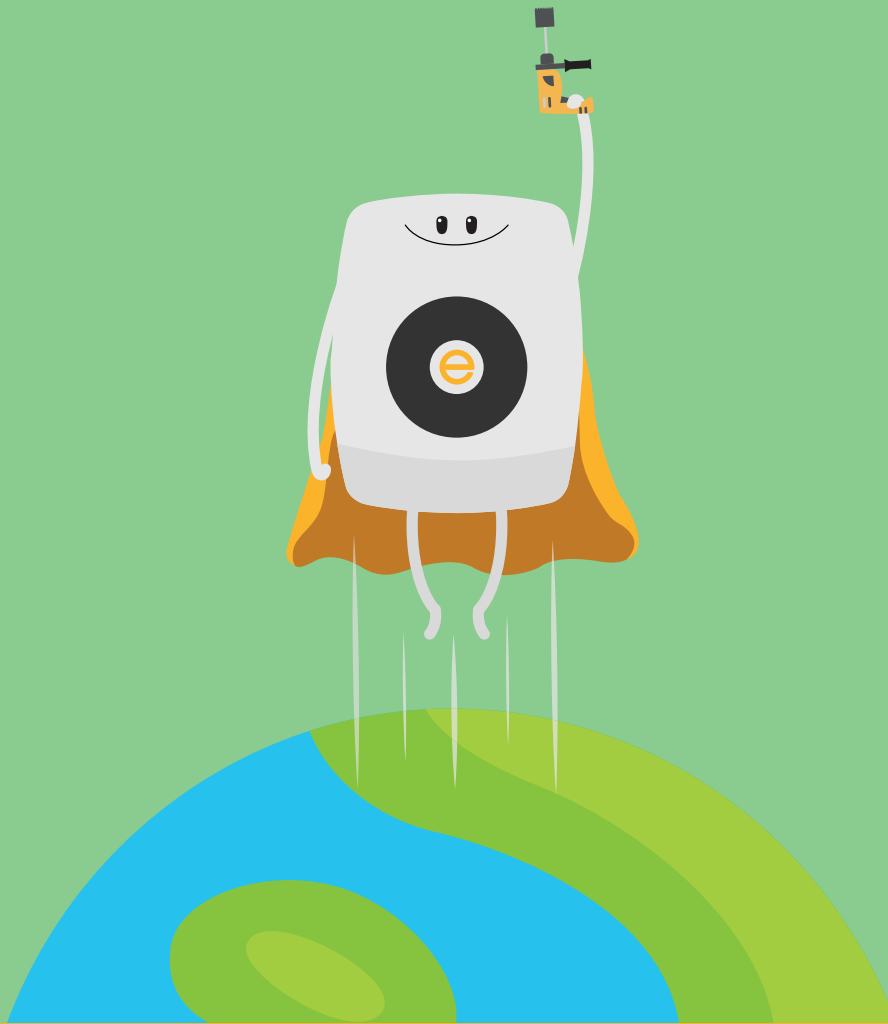
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Make Sure You're Seen in The Right Light

The need to produce energy-efficient buildings is a key consideration in today's sustainability-focussed construction sector.

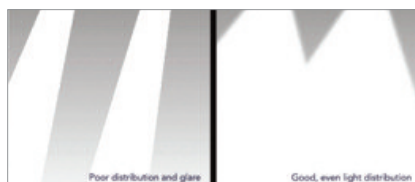
Saving energy reduces the carbon footprint and makes a vital contribution in the drive for carbon-neutral buildings. It also saves money by reducing the running costs of the building.

When considering large buildings, particularly in the metal shed sector, the traditional targets of improved thermal performance and minimised air-leakage have now reached their optimum performance levels. Put simply, further increases in insulation levels now deliver limited benefit.

Specifiers and clients are becoming focussed on the significant contribution that can be obtained by designing natural daylight into buildings, and seeking the best rooflight solutions to deliver this free resource.

Depending on the type of lighting system installed, the cost of lighting a building can be more than ten times the cost of the heat saved by removing the rooflights. In many building designs, the cost of the lighting can be four times that of the heat losses when 'light to heat' balance has been considered. Even with low energy LED systems, this ratio can still be as high as three times. Accordingly, the daylighting plan is now becoming a principal consideration in the building envelope design and specification process.

The emphasis on this critical design aspect means that specifiers are now faced with a veritable haze of information and choices they can make on rooflight specifications.



Like every other component within the building envelope, rooflights must perform several functions:

- They must deliver good light transmission
- This must not create excessive solar gains
- They must deliver adequate heat retention
- They must provide a non-fragile roof assembly
- They must deliver a well-lit building with the right kind of light

Not all these requirements are complementary. It is important to strike the right balance for each building design, and understand that

there is no single solution.

It is also important to understand that there are laws of physics that cannot be changed. In glazing and glass reinforced polyester rooflight systems, most of the heat energy from the sun is transmitted directly and in the visible spectrum. Plastics such as polycarbonate have more energy transmission in the infra-red regions and beyond. This means that it is simply not possible to deliver any system with an unachievable mix of high light and low solar transmission levels.

The same is true for specifications which adopt only some elements of a 'holistic package' design in isolation. In the right building, it is sometimes possible to use smaller areas of rooflights than would normally be considered adequate, but these may be designed and intended for use in conjunction with additional offsetting renewable energy sources. Even using rooflights that deliver exceptionally high light transmission levels, poor distribution - or inadequate areas of rooflighting - can create uneven and unsatisfactory levels of light balance within the building.

Similarly, whilst the improved thermal performance of rooflights can reduce heat loss, the inclusion of increasingly numerous 'clear' insulating layers or cells can be counter-productive. Each layer or cell adds an additional light reflective surface into the assembly. These cumulatively reduce the level of light transmitted into the building, potentially costing more than the small savings in heat retention.

There is no trade-off on non-fragility. It is about safety and saving lives, and no-one within the specification chain has the right to gamble with it. Rooflights can be made stronger by making the material thicker and more substantial, but in metal cladding systems, this can come at a cost. Installation fit and weatherproof sealing becomes harder to achieve, but innovative reinforcement methods are now available delivering high impact and tear resistance in lighter, thinner sheet formats.

Finally, we come to the question of which kind of illumination is best for the building. High levels of light streaming through small openings in the roof - no matter how well diffused - inevitably deliver a mixture of glare and gloom. This is further worsened by increased shadows created within the building by both the fixtures & fittings, and the occupants. Achieving a good 'average' level of daylighting within a building is very different



PICTURED ABOVE

This is often claimed as '100 per cent diffusion'



PICTURED ABOVE

This is what the designer expects from 100 per cent diffusion

to delivering good uniformly distributed daylight. This avoids the need for additional and localised supplementary artificial lighting. Glare and gloom can be significantly reduced by higher levels of diffusion from the rooflight. GRP, by its very nature, spreads daylight omni-directionally within the building and can make a major contribution to internal illumination uniformity and comfort levels. But responsible specifiers must always recognise that diffusion alone cannot deliver the uniformity of lighting that is so often assumed or taken for granted.

There are great savings and positive contributions to be made by incorporating rooflights into a building envelope. With every specification element, it is important to understand the need to strike a meaningful balance between the performance options of the rooflight.

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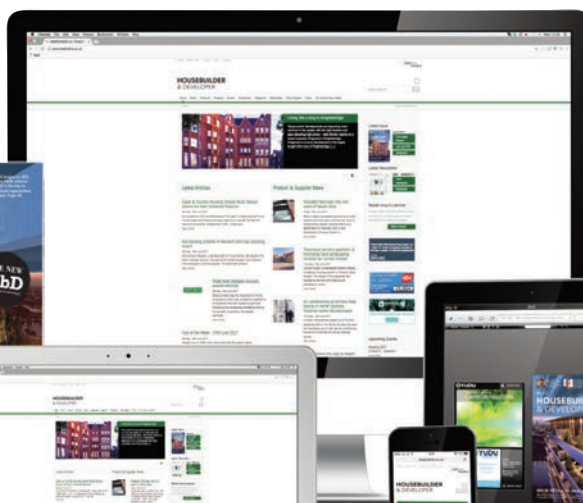
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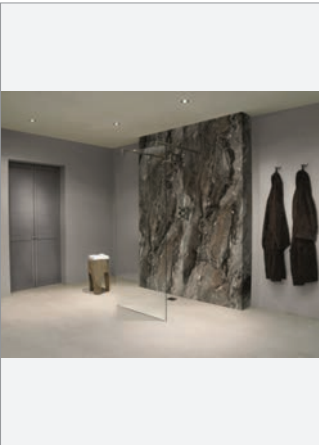


The sounds of science



Experimentarium in Tuborg near Copenhagen is one of the most exciting buildings to open in recent months. Designed by CEBRA architects, this world class science centre provides families, school children and science lovers high-quality science exhibitions where they can touch and play and experience science in an innovative new way. This fascinating project is full of contrasts meaning that the structure itself is as much an exhibition as the attractions and sights within. Inevitably the use of hard surfaces throughout, coupled with the noise and chatter from thousands of daily visitors, meant the architects had to pay special attention to the acoustics. Their solution was to install **Troldtekt** ceiling panels which provide a very high-performance sound absorbing surface which contrasts dramatically with the copper, aluminium and glass elements and complements the interior atmosphere. In addition, because the ceiling is suspended it can be removed or adapted to accommodate exhibition changes within the 11,500sqm of public spaces. The benefits of Troldtekt panels include high sound absorption, high durability, natural breathability, low cost life cycle performance and sustainability.

01978 664255 www.troldtekt.co.uk



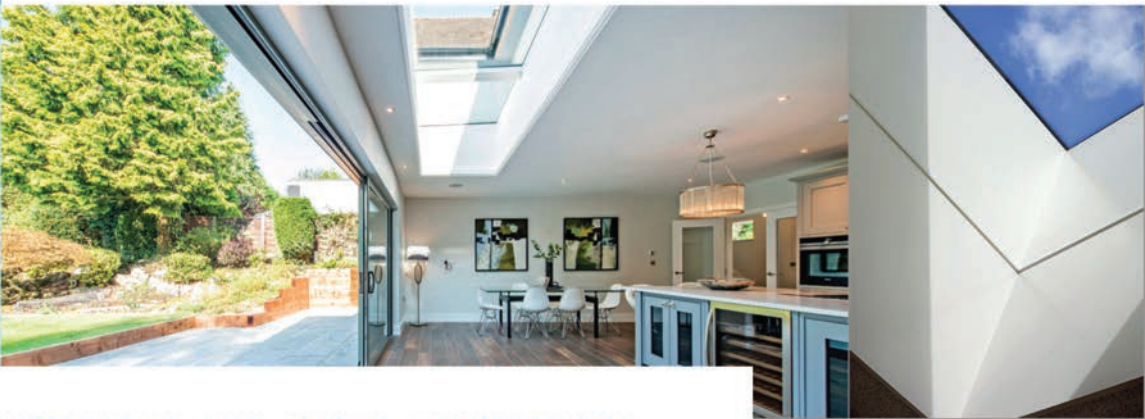
Nuance Bathroom Panelling six times faster than tiling

Tiling takes time – and is expensive. According to Which Magazine, tiling a 7ft by 7ft small bathroom can take one to three days and costs up to £800. A large 13ft by 7ft room would cost around £1315 to tile and take three to six days. Add the cost of the tiles and the noise and disruption involved in having the work done and it becomes an unattractive prospect for homebuilders or renovators. But what if a sleek, easy to maintain waterproof surface could be installed in as little as four hours for an average bathroom – and even be used to cover old and past their best tiles? In time trials conducted by **Bushboard**, fitting Nuance bathroom wall panelling was six times faster than ceramic tiling. Nuance bathroom panelling is completely waterproof, comes in a choice of 25 attractive and on trend finishes and can be applied over old tiles to give a tired bathroom a bright new look without mess and disruption. The panels are 100 percent waterproof and there is no need for ugly extrusions or trims which means the finished effect is sleek, virtually seam free and a cinch to clean. Ideal for bathrooms, cloakrooms, showers and even wetrooms Nuance panels are ideal for any site where down-time needs to be kept to an absolute minimum. Postformed edges make external corners easy and the choice of panel sizes reduces waste.

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BBA Certified Damp Proofing from Newton



Thanks to its new BBA certified damp proofing range, **Newton Waterproofing Systems**, one of the oldest independent UK damp proofing suppliers, can now provide a comprehensive solution for rising damp.

To prevent rising damp from occurring in new builds, a physical damp proof course (DPC), such as the BBA certified Newton 809-DPC, is installed. However, in remedial rising damp situations the best method is to use Newton 804-DPC, a high strength and BBA certified damp proofing cream, to convert an existing mortar course into a new DPC. Newton 808-RA is then used as a render additive to prevent the passage of residual moisture and hygroscopic salts from the masonry to the new internal surface.

Collectively, the Newtonite Damp Proofing System can be combined to provide a BBA certified solution to all forms of damp, from rising damp to penetrating damp, residual hygroscopic damp and condensation.

01732 806 963 www.newtonwaterproofing.co.uk

NFTMMS Member renovates Historic Ceramic Mosaic floor at major Stately Home



Restoring the historic ceramic mosaic floor in the game larder at one of the UK's leading historic houses has been undertaken by **National Federation of Terrazzo, Marble and Mosaic Specialists (NFTMMS)** member JW Restoration. According to Federation spokesperson Brian James, this exemplifies the quality of the skills and craftsmanship of NFTMMS members which can produce the most spectacular results. The game larder, which dates from 1909, was used to hang game that was shot on the Estate. It became derelict following the arrival of modern refrigeration techniques and was subsequently used to house chickens in the 1950s and 60s. The initial report revealed that the large octagonal mosaic floor was missing large sections of ceramic tiles, called tesserae, and there was damage where the original internal metal work had been removed. JW Restoration hand cut the tesserae to the correct size and appearance to match the original precisely. They worked from a rubbing of a section of the mosaic which allowed them to replicate the fan pattern of the original and the missing sections were then made in their workshop and transported to the stately home for the installation.

www.nftmms.co.uk

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Encasement's simple solution to conceal fire sprinkler system pipework

Where fire sprinkler systems are being installed or retro-fitted in tower blocks and flats, Encasement's 'Versa' pipe boxing range provides the perfect cost effective solution for concealing sprinkler pipework.

Manufactured from pre-formed FSC® certified plywood and pre-finished in a durable white melamine, Versa 'L' shaped boxing is available in either 5mm or 8mm thicknesses for use within flats and communal areas, such as stairs and lift lobbies where sprinklers are required. Versa boxing can be used with standard sprinkler heads or concealed 'pop-out' units with cover caps.

Available in a wide range of sizes, Versa sprinkler pipe boxing helps save on installation time, as there's no need for fabrication or painting on site. All that's required is for the boxing to be cut to length and holes drilled for the sprinkler heads before securing to the wall or ceiling.

Encasement's Managing Director, Martin Taylor, commented "Our fire sprinkler boxing has already been installed on a large number of number of high rise refurbishment projects, where pipework and sprinklers need to be



concealed for both aesthetic and practical reasons. Not only are they cost effective and easy to install, but Encasement also holds a full FSC® 'Chain of Custody' certification, which certifies that our products are manufactured from sustainable timbers. This means that

local authorities can meet their compliance obligations under UK government procurement guidance."

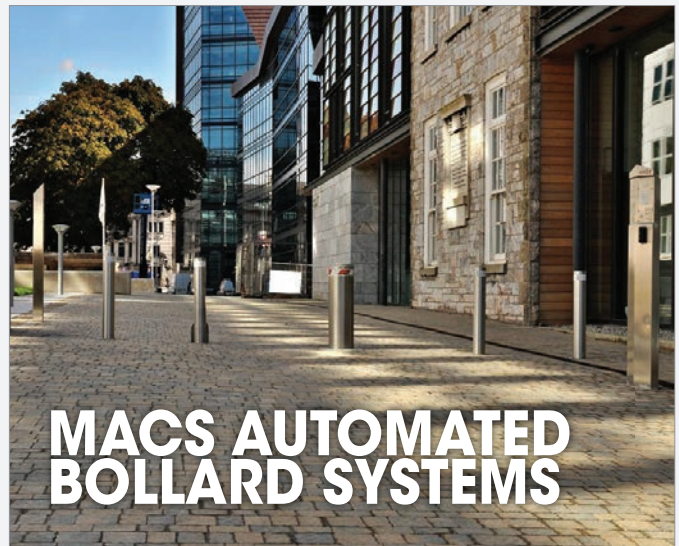
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Cladding makes a difference in Caerphilly

Freefoam Fortex Double Shiplap PVC-U Cladding has been utilised to great effect on homes on the Lansbury Park estate in Caerphilly. Installed as part of a £2 million investment package to improve energy efficiency and transform the appearance of the estate the extensive refurbishment programme was commissioned by Caerphilly County Borough Council and fitted by contractor Eon Energy. The development previously featured white PVC cladding but the refurbishment gave the opportunity to bring colour to the properties. Eon Energy chose a variety of subtle shades from the Fortex range including Cappuccino, Colonial Blue, Misty Grey and Argyl Brown to compliment the new exterior finish. PVC cladding is a cost effective option saving expensive and time consuming ongoing maintenance. With Freefoam's ten year guarantee on the majority of the colour range Caerphilly Borough Council will still be seeing the benefits in many years to come.

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Hauraton surface drainage systems installed at Maltby Academy School, Rotherham

The Maltby Academy School to the East of Rotherham was established in the 1930s with additional building added in the 1960s. The school has expanded and now offers up to 1200 student places.

Early in 2012 it was decided refurbish the older building and build a new open plan business/enterprise centre and sport science block. In addition, the old gymnasium was to be converted into a performing and creative arts facility.

The £10.9 million contract for the re-development of Maltby Academy was awarded to BAM Construction of Leeds, in June 2012. The site was fully operational by September 2013 with full completion shortly afterwards.

With the site being quite flat, and the old and new buildings' surrounded by paved and asphalted surfaces, it was essential rainwater is drained effectively. Two Hauraton systems were chosen to drain surface water: RECYFIX® PRO and RECYFIX® SLOTTED channels.



A Hauraton RECYFIX® PRO 100 channel system, fitted with FIBRETEC® C250, HEELSAFE 9mm slot gratings, was used to drain the asphalted yards and car park.

Since its launched in February 2010, the RECYFIX PRO surface water drainage channel, featuring the innovative FIBRETEC® grating, has been specified and successfully installed in numerous United Kingdom drainage projects, including rail station platforms, public squares, shopping malls, sports-fields, tartan running tracks and many

other commercial and private applications.

The material PA-GF, used to make the FIBRETEC® grating, was especially developed by Hauraton; the tough, UV resistant, fibre reinforced moulding offers high stability and huge strength for its weight. Complying with loading category Class C250 the grating can easily take the weight of commercial delivery vehicles. The design is a real innovation as its non-corrosive material provides a visually appealing surface finish that retains its black colour.

The FIBRETEC® C250 HEELSAFE grating was specifically designed by Hauraton R & D engineers to enhance the flow of water into the channel. The slots are super smooth, elliptical openings with the moulded bars having slightly raised triangular bosses along their outside edges. As well as providing an elegant appearance, the feature ensures surface water is directed into the slots.

07768333852 www.drainage-projects.co.uk

Structural glass balconies add minimalist style



Neaco's structural glass balconies are adding beautiful minimalist looks in keeping with the impressive contemporary design of Oakapple Group's mixed-use development in the centre of Clapham. Designed by Harris Architects, the scheme comprises

10,000 sq ft of grade A commercial space and 40 luxury apartments with communal external terraces on upper floors. With a choice of glass-fronted designs, Neaco's Clearview balcony range is renowned for its superior visual appeal and the free-standing structural glass option offers the ultimate in contemporary style with no supporting stanchions required.

sales@neaco.co.uk

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Garador's Georgian garage doors

Garador's range of Georgian style up and over garage doors are some of Britain's most popular garage doors. Constructed from high-grade galvanised steel and available in a large selection of standard and purpose-made sizes, they are excellent for almost any build.

The Georgian steel up and over door range includes Georgian, Beaumont and Cathedral designs, each with crisp and elegant panel pressings. They can be supplied with either canopy, retractable or retractable plus gearing, the latter of which provides extra drive through width.

These impressive doors are available in a choice of 17 colours in long lasting vibrant paints. To find out more about Garador's Georgian Steel Up and Over garage door, call or visit the website.

01935 443700 www.garador.co.uk

All-weather tiling solutions for balconies, terraces and roof terraces

Outdoor living areas including balconies, terraces and roof terraces are becoming increasingly popular as people expand their properties.

However, to have these areas available all year round requires coverings that are durable, hard-wearing and all-weather – and tiles are the perfect answer.

When specified with the correct system assemblies for tiling, many types of tile installations are possible externally. This includes the use of finishes such as ceramics, porcelain, some natural stone and pavers.

However without the correct tiling systems, tiled areas can be susceptible to cracking, efflorescence, or staining – all derived from water damage or fluctuations in temperature.

Water penetrating the lower levels of an external assembly can pose a serious risk to the structural integrity of any balcony, terrace or patio. Permeation of water through tile joints will eventually cause damage if no provision is made for water to drain away efficiently.

To protect tiles against this multitude of potential problems, BAL has introduced its new range of unique External Tiling Solutions in conjunction with sister company Gutjahr.

Simple to install and providing rapid, immediate and high volume drainage, water is drained down through the screed and rapidly expelled from the assembly through unique, patented drainage mats, grates and drip/drain edge profiles meaning no water staining, no freeze/thaw threat or efflorescence.



The new products represent a complete new range of solutions for the BAL portfolio and work as a system with current BAL preparation, adhesives, grouts and sealant products.

To ensure that moisture staining, frost damage and efflorescence do not become problems in the future, it is crucial to specify the right products. It is vitally important to remember that water sensitive tiles and slabs should not be used externally.

The correct combination of products and materials include:

- Appropriate drainage assemblies – structures with effective falls, drainage and often with reduced thickness.
- Suitable backgrounds – non-absorbent, rigid, fully cured and dry, unaffected by temperature fluctuations and preferably cementitious
- Correct selection of adhesive and grout – rapid setting/low water demand i.e. white for light natural stone such as BAL Rapid-Flex One or BAL Pourable One.
- Tile/slab selection – with low porosity, break-proof, suitable for external use i.e. frost resistant.

BAL offers three systems, each designed to meet the height and weight requirement of varying constructions and a number of different edge finishes, depending on screed thickness, tile size and thickness and the desired look.

Traditionally, external tiles have been fixed directly onto sand:cement screeds, into cement:sand mortar beds, thick drainage screeds, loosely laid gravel bed or by using cement based pedestal systems.

While each has their own benefits, such as ease of use and lower cost, they all fail to adequately deal with water effectively. For example while traditional sand:cement screeds, thick drainage screeds and gravel all absorb large volumes of water, and are prone to the problems highlighted above, water can also travel back up through the screed, gravel bed or adhesive pedestal causing water sensitive tiles and slabs to become stained.

The use of a drainage screed is the answer. Cavity rich, with lots of capillaries, the water drains through quickly and efficiently and also offers reduced shrinkage and



deformation. When combined with a quick-setting cement for fast-track installation, drainage mortar seems to be the ideal solution, however drainage screeds alone will not solve the problems with drainage alone. The use of a complete drainage system, including drainage matting, drip/drain edge profiles, drain grates and guttering – such as BAL's external tiling solutions – provide rapid and immediate drainage of water.

Among the systems on offer from BAL include Thin Drainage Assembly for direct point adhesion for break-proof coverings (complete construction height from 29mm), Standard Drainage Screed Assembly for the solid bed fixing of ceramic, porcelain and natural stone and concrete paving (from 68mm build-up), and a Thin, Lighter Weight Drainage Screed with an epoxy drainage screed for a strong but comparatively light-weight build-up compared to conventional systems (from only 43mm height build-up).

These new products represent a complete range of solutions from the BAL portfolio and work as a system in conjunction with current BAL preparation, adhesives, grouts and sealant products.

This means for the first time architects, designers and contractors are provided with a true 'one-stop-shop' for balcony, terrace and patio systems for a range of different coverings.

For more information and to request a demonstration visit the website

01782 591100

www.bal-adhesives.com/gutjahr-zones



Senior strengthens supply chain links with new college contracts

Collaboration and repeat business with key supply chain partners has seen aluminium glazing solutions from Senior Architectural Systems specified for use on two new college contracts.

Senior has supplied the glazing packages for both the new Lancashire Energy HQ at Blackpool & Flyde College and the Advanced Skills and Innovation Centre (ASIC) at Wakefield College in West Yorkshire, working with fabricator and installer Aire Valley Architectural Aluminium Ltd and main contractor Bardsley Construction to deliver the design vision of architects IBI Group.

Combining attractive slim sightlines and high thermal performance, the building envelope of both college buildings has benefitted from products from Senior's extensive range of aluminium doors, windows and curtain walling systems.

Reflecting the college's focus on training for the renewable energy sector, the new Lancashire Energy HQ at Blackpool & Flyde



College boasts a sustainable design scheme which includes a living green wall and an energy-efficient glazing package. The improved thermal performance and slim sightlines offered by Senior's SF52 aluminium curtain walling made it the ideal choice to create the college's attractive double-height atrium and striking faceted entrance, which also features Senior's robust SPW500 aluminium doors. Further contributing to the building's BREEAM rating of 'excellent' are Senior's thermally-broken SPW600e aluminium windows.



Also designed by IBI Group, the new ASIC building at Wakefield College features the same specification of aluminium fenestration solutions from Senior which have once again been installed by Aire Valley Architectural Ltd for main contractor Bardsley Construction Ltd. Here, Senior's SF52 curtain walling has been used to add further interest to the building's attractive façade design which features a mix of masonry brickwork and coloured cladding panels. The modern design of the new-build three storey building maximises the use of light and space, with the slim profile of Senior's SF52 curtain walling system and SPW600e aluminium windows helping to create a welcoming and comfortable learning environment.

01709 772600

www.seniorarchitectural.co.uk

Bespoke rooflights enhanced London home



Located in a West London conservation area, the existing property required updating by remodelling the kitchen and dining room that suffered poor connection to the rear garden. North facing, these rooms received little daylight from the modest sized windows. It was a dark and dingy space. Architect Simon Feneley's response at Feneley Studio, was to reconfigure the ground floor providing a utility and cloakroom off the entrance hall with a formal sitting room at the front of the property. A full height sliding pocket door reveals a newly extended family room with a panoramic view of the garden. The roof of the extension is asymmetrical about the axis from the front door, providing increased floor to ceiling height and avoiding a long continuous corridor. Custom made East and West facing rooflights by **Lonsdale** provide generous amounts of natural light and are a focal point of the extension with dramatic results as the sun moves from early morning until dusk. Ever changing forms of sunlight fall upon the polished concrete flooring which runs throughout the ground floor, with daylight washing down the full height herringbone wall tiling in the contemporary kitchen.

0208 801 4221 www.lonsdalemetal.co.uk

Flying light



Kalwall® translucent cladding has transformed the newly completed 4,200 square metre extension at Indiana's South Bend Regional Airport. Designed by architects Ken Herceg and Associates, the new terminal comprises five gates, restaurants, gift shops and break-out areas all housed under an architecturally exposed, steel-framed barrel vault structure that simulates the structure of an aircraft wing. This is covered with a curved Kalwall Skyroof® 10 metres wide and 180 metres long. As passengers exit the dark and windowless TSA screening area, they are bathed in welcoming and natural daylight with unimpeded views across the runways. Kalwall eliminates shadows and glare and the stark contrasts of light and shade. The system also enhances simplicity by doing away with 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. The standard Kalwall 70mm thick panel offers insulation up to 0.28W/m²K – equivalent to a cavity filled brick wall, while still allowing for up to 15 per cent visible light transmittance.

www.structura-uk.com/kalwall

An Introduction to Hauraton DRAINFIX CLEAN

In recent years a lot has been talked about flood prevention and the need to deal with surface water.

There is also a growing acceptance that SUDS is not, as often labelled, just a green fad, about building a pond or putting a green roof on a garage. It's also not just an easy way to blow a hole in the construction budget.

A well-designed, robust SUDS scheme will be resilient, prevent and deal with flood water, create a better living space for us all, offers biodiversity to allow Mother Nature to flourish, can be affordable, and offer low ongoing maintenance costs.

All too often SUDS are just thought of to be constructing a pond or building a swale, whilst these have their place in any SUDS scheme, a sensible design approach makes use of a mix of vegetative, hard landscape and proprietary systems to create a robust and workable solution. There is a need to look at Creative SUDS and an acceptance that there is no one size fits all scheme.

Hauraton DRAINFIX CLEAN has been developed as a proprietary drainage channel with the unique ability to collect, store, clean and then discharge surface water. During the cleaning process the product has been extensively tested and will remove of 99.5 per cent TSS (total suspended solids) 99.9 per cent TPH (total petrol hydrocarbons) 99.8 per cent Zinc and 99.8 per cent Copper.

It is widely accepted that the SUDS Manual produced by CIRIA is the go to guide for designing of SUDS, Hauraton DRAINFIX CLEAN is included in this guide under chapter 14 which deals with Proprietary Systems. Over several years trial sites were set up in Germany with DRAINFIX Clean, regular sampling and extensive testing has led to the product being awarded a converted Dibt certificate.

Maintenance requirements are minimised, given time a layer or cake will build up over the filter substrate, this offers several benefits by way of biological filtration. It is estimated



that on a well-designed system, maintenance will only be required every 10 years.

Recent UK installations have included retail car park's to ensure surface water is cleansed prior to discharge into the sewer network. Further installations have taken place for a national agency where there is a requirement to remove heavy metals and hydrocarbons from surface water prior to discharge.

Hauraton DRAINFIX CLEAN offers the unique ability to be able to collect and clean surface water, has low ongoing maintenance costs and has been through onerous testing. It is included in the SUDS manual. It offers designers and contractors alike another option to help in developing a resilient, robust and assured SUDS scheme.

01582 501380 www.hauraton.co.uk

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The new look of urban design

The creative use of perforated metal in urban design shapes the framework of our surroundings. Perforated metal offers a whole new level of freedom for designers and architects who want to influence the cityscape of tomorrow and breathe new life into urban areas.

As any architect can testify, a city is not just about the buildings. The city is a landscape of aesthetics, emotions and ambitions. The city is an expression of human interaction and a crossroad of past, present and future. This makes the urban landscape a playground for ambitious architects and entrepreneurs who want to make their mark and to influence the shape of tomorrow.

Architects focus on new ways to design modern buildings and are on the look-out for materials that will contribute to their interpretation of city life. RMIG is a world specialist in perforated metal and leads the way in developing innovative solutions for creative urban design that are based on perforation in all shapes, sizes, colours and surfaces.

Versatility and functionality

Perforated metal offers a unique versatility and functionality when it comes to design, material and use. A good example is the use of perforated metal as decorative facade cladding, where it also serves as an efficient sun screen that does not require power or manual adjustment to work. It is a 'green' solution that creates a comfortable indoor atmosphere for the users of the building.

Sound absorption is an area where perforated metal can also be used to great advantage. When used for walls and ceilings in interior design, the perforation combined with sound absorbing fabric or batts ensures maximum noise reduction. This contributes to a better and safer environment for many, whether they are occupants in residential buildings, using public facilities or working in an open plan office.

Picture perforation, known as RMIG ImagePerf, is yet another elegant solution to the challenges of architectural design. RMIG ImagePerf converts perforated metal into a 'projection screen' for art, photographs, illustrations and graphic designs. It provides



an inspiring level of creative freedom and strong expressive power for designers and architects. It can be used as a contrast to the other building materials, to highlight certain parts of the building, or to show those in the vicinity the purpose of the building.

01925 839 600 www.city-emotion.com

