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Residential

Walkway connectivity challenges overcome at Maidenhead housing estate

On the Table: Housebuilding

Our expert panel discusses the key issues affecting the buoyant housing sector

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FROM THE EDITOR



The residential market has arguably been the leading light of the construction recovery over the last three years, with growth exceeding most forecasts. Recent reports suggest the pace of the sector's expansion is starting to slow, however official statistics released by the Department of Communities and Local

Government (DCLG) in May show that 40,340 new homes were started in England in the first quarter of this year, the highest quarterly number since 2007. Almost the entire construction agenda is currently being shaped by the housebuilding sector, therefore I make no apologies for banging on yet again about residential construction in this issue.

We start with our first Residential focus of the year on p12 with an excellent case study highlighting a refurbishment project in Maidenhead where structural thermal breaks were required to resist a much greater shear load than would be the case with a more conventional walkway design. When products are used to help overcome challenging

design, such as in this application, it really does help to affirm their credentials as 'problem solvers', which is important as specifiers always want reassurance that a solution will work, even in difficult situations.

Going back to housing, our On the Table panel (p20) casts a critical eye over the current issues facing the sector. For instance, the requirement for all new homes to be built to 'zero carbon' standards is still planned to launch in 2016. This is all the more amazing when you consider how little detail recent Governments have revealed about how it will actually be achieved. All we really know is that 'zero carbon' won't really be zero carbon, with various methods of carbon offsetting allowed under the planned regulations. Exemptions for SME developers building less than 10 units will ensure that the growth of private housebuilding isn't dulled, however are we rapidly approaching a point where the standard no longer has meaning?

Joseph Dart, Editor

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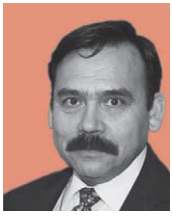
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INDUSTRY ADVOCATE



With sustainability now becoming an increasingly important facet of product selection, Ray Khan, director of Quality and Environmental Standards at Hambleside Danelaw, examines the practice of 'greenwash', and ways to avoid products with environmental claims that aren't necessarily all they're cracked up to be.

Green products sell. Sales and marketing professionals know how important green credentials can be when promoting a product, which is why the industry is inundated with products claiming to be sustainable. This puts specifiers in a difficult position as they are forced to sift through a raft of product information in order to discern whether claims are real and meaningful, or simply 'greenwash'.

All claims should be factual and scientifically sound in order to offer consumers real choice. When they are, they are a powerful catalyst for sustainability, reducing demand on raw materials and driving up recycling rates.

False or misleading claims help no one. They confuse the consumer, cause overload of information, build distrust and turn people away from making the correct choices. Furthermore, greenwash can paint every manufacturer with the same brush.

"Eco-labels should be accredited by independent bodies or scientific facts, and they should also cover the whole lifecycle of the product from extraction of raw materials to final disposal"

There is no such thing as a completely 'green' product: everything we buy or use has had some adverse effect upon the environment because it has to be extracted, grown, made, transported etc. in some way. Products with low environmental impact cannot be considered green, however they are greener than the alternatives.

The characteristics of greenwash are numerous. For example, terms we see every day, like 'green' and 'environmentally friendly', have no real meaning in isolation. These terms must be backed up with clear explanations and scientific facts, such as it emits less than 131 g CO₂/km, for instance.

Eco-labels should be accredited by independent bodies or scientific facts, and they should also cover the whole lifecycle of the product from extraction of raw materials to final disposal, cradle-to-grave, including packaging, transport and any ancillary items that are essential to using the product. Labels that are not backed by independent review by a trusted body are merely badges to be bought.

In addition, claiming to have no Substances of Very High Concern means nothing if all similar products have to meet the same legal requirements.

DECEPTIVE PRACTICES

Manufacturers which make claims about a single environmental benefit, whilst knowing full well that a product has an overall detrimental effect on the environment, are just as bad as those which lie about the product. As previously mentioned, claims should cover the full life cycle of a product.

Also, some manufacturers will compare a product against solely inferior products, which can be misleading, especially if there are higher performing products readily available on the

market. All comparisons should be made against all similar products that are available to do the same job.

We, as consumers, need to become better at spotting 'greenwash' and put pressure on companies which make false or misrepresentative claims. With this in mind, consumer education is one of the most effective marketing strategies for any environmental organisation.

Even though more and more people aspire to be green consumers, many are still not prepared to pay more for the privilege. This is short term thinking driven by annual budgets. If we take a more long term strategic look at energy savings from products that are considered 'green', they will typically give payback within the first three years of use.

FUTURE DEVELOPMENTS

It is likely that the various labelling schemes that currently cause confusion will in time get whittled down to a few well known trustworthy and unbiased labels – as has occurred in the organic food market, for instance.

Clear guidance from organisations such as the Carbon Trust and WRAP, the waste and recycling charity, will also help consumers make the right choices. More responsible manufacturers and trade bodies will continue to lead the debate and set examples of best practice. In addition, better reaction by Trading Standards Officers would ensure that the false or misleading claims are more easily spotted and actions are taken against the perpetrators.

All of these changes will play a vital role in enabling consumers to make more informed decisions when specifying sustainable products.

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THE KEY TO BI-FOLD SUCCESS

Over the last 20 years, the bi-folding door market has grown at an exceptional rate, bringing with it an evolution in design as suppliers battle to become the market leader by displaying the latest design features and technology. For Origin, a British manufacturer of bespoke aluminium bi-fold doors, windows and blinds, the secret of great design lies in its simplicity. Origin discusses the company's design process and the R&D ethos that has led to it creating its award-winning bi-fold system.

From the start, Origin's roots lay in design. The company was formed 13 years ago when Neil Ginger and his cousin Victoria Brocklesby found they could not find a high quality bi-fold door supplier in the UK for their fathers' swimming pool business. Their ambitious solution was to establish a company to manufacture the UK's best quality doors with uncompromising levels of service. The result was the Origin Bi-fold Door, a cleverly designed, beautifully made folding sliding door system.

Today, Origin is a £20m turnover business, employing 160+ people with operations in Dubai and North America. Every door that leaves the High Wycombe factory is bespoke and made by skilled craftsmen.

It was Neil Ginger who designed the original Origin Bi-fold door, but today, the company has its own team of designers, with Ginger still at the helm. While the research and development side has grown significantly over the years, the focus remains the same – high quality engineering and a system designed with the customer in mind.

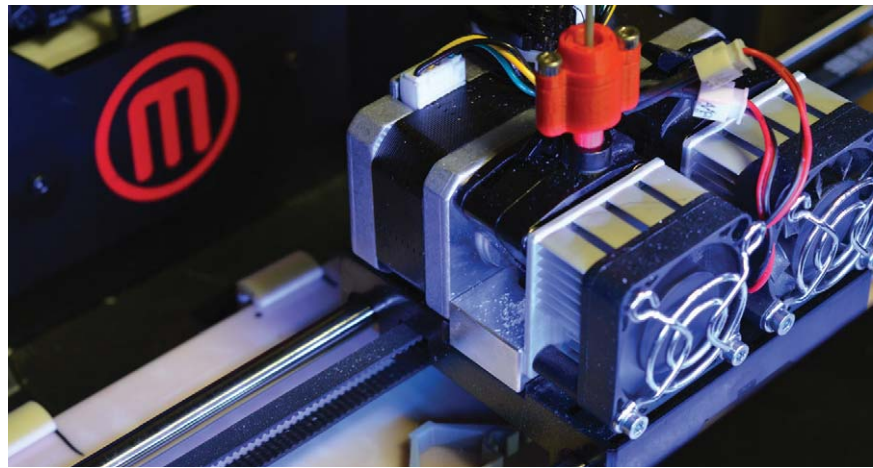
This means offering the best solution for trade customers and the homeowner who will live with the doors for years to come. The trade partner's priority is to install the system quickly, easily and to a high standard, without any call backs. They want to only have to visit the site once, so the system has to be faultless in that respect. For the customer, the priorities lie in having a product that will continue to function excellently for the next 20 to 30 years, while aesthetics also play an important part.

Both considerations for the trade and consumer need to be taken on board, which is the job of Origin's R&D team.

NO GIMMICKS

In 2008, only 7,000 sets of bi-fold doors were installed. This number has risen significantly and is estimated to be closer to 50,000 this year, according to Palmer Research. As the popularity has risen, so has the temptation to produce the 'next big thing' on the marketplace. From electric bi-folds to inbuilt blind systems and zero thresholds, there have been a number of new design features launched in recent years.

While we are open to new design, Origin is disciplined in steering away from gimmicks. For example, an electric bi-fold door may appeal, however, in reality, a homeowner won't use the function often enough to justify the cost.



Slimmer sightlines are something also to be wary of. While, on the surface, reducing the amount of aluminium in the frame should lead to a more pleasing aesthetic, it is important to find a balance. Go too small with sight lines and the doors take on the appearance of products more akin to internal use, like a shower door, and you also have the disadvantage of losing the structural integrity and security of the doors.

Origin champions the true function of the product. Our design discipline keeps this as the focus, and has allowed Origin to offer a 20-year guarantee – twice the industry standard. When considering a new design concept, the first question is whether a customer will use it, and whether it adds value to the existing system.

INVESTMENT IN R&D

Origin has made a significant investment towards in-house research and development, investing 5% of its annual turnover on product design in the last year alone.

The 3D printer and design software, installed by Origin in 2014, has made a huge impact on the speed and accuracy at which the R&D arm of the business operates. It's also allowed us to redesign, manufacture and test components in-house for increased strength and durability.

Years ago, the only way to redesign a component would be through the use of a lost wax dye, which costs thousands of pounds. The R&D team would have to make an educated guess on the end design, but as the budget has increased, the complexity and the parameters that have been adopted for putting something onto the market has changed dramatically.

Today, the design process involves coming up with the initial concept, then using the latest technology to design a 3D model – either on a screen or a

print out. The component is then made on the 3D printer so we can see how it feels and works in the hand. It's then a case of iterations after iterations until the product is 100% right. The design is then made into a metal prototype with springs and screws. The final component will go to cycle testing to ensure it meets Origin's high standards.

This year, Origin has been working on updating the design of the slave handle. The redesign for this went through 40 revisions of the same process: tweaking the radius, then printing it out again, then tweaking again, and so on. The 3D printer produces plastic printouts, but they work in the same way a metal component would, so we can get a real feel for how the end product will function.

GOING FOR FOLD

The next big thing isn't a product being launched. Instead, what everyone needs to be looking at right now is performance across the board. Improving the thermal efficiency of existing systems particularly will be key, especially with fuel prices on the rise.

For Origin's R&D team, the objectives for 2015 are to look at our award-winning bi-fold door and window system and see how it can be improved – a job that's easier said than done.



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DESIGN BRIEF



Steve Dixon, sales manager at Pryor Marking Technology, examines the process of CE marking, and details the methods of product marking currently available to ensure compliance with EU standards.

In July 2013, it became mandatory for construction products, under the Construction Products Regulation (CPR), to apply CE marking. The Directive required that CE marking should be affixed visibly, legibly and indelibly to the construction product or to a label attached to it. Where this is not possible, or not warranted on account of the nature of the product, it was required to be affixed to the packaging or to the accompanying documents. The downside of this is that once the packaging is discarded, there is no evidence that the product was CE marked.

Prior to 2013, CE marking had been a voluntary arrangement, so the EU Directive did present the construction industry with a significant challenge – that of how to integrate product marking into the manufacturing process. Some saw this as an opportunity to add further marks, such as logos and product codes, to reinforce the brand, which is possible as long as it does not interfere with the CE mark.

“As CE marks are expected to be of sufficient quality to last the lifetime of the product, the method of marking is extremely important”

There are many different considerations to take into account when it comes to CE marking. Firstly, at what stage of the manufacturing process should the mark be added? For example, could it be done within one of the other manufacturing processes, such as moulding, which could save cost and time. Another consideration is where on the product the mark should be added. The guidance simply states that the mark should be clearly visible, but this is left to the discretion of the manufacturer.

As marks are expected to be of sufficient quality to last the lifetime of the product, the method of marking is extremely important. Take, for example, the window industry. PVC window manufacturers

are required to mark the date and manufacturers' name. After we carried out extensive tests with manufacturers, we found that laser marking worked best and it was suitable for use on a wide range of different PVC window products.

Other products, such as GRP doors or timber window frames, could be marked with hand stamps or type or logotypes applied by machine or hand. In the case of each different material, our technical team would carry out a test marking exercise to see if these methods were suitable.

MARKING METHODS

There are various different marking methods that should be considered. Punch marking has the advantage of being quick, cost-effective and flexible. It is also popular as it can be used in most manufacturing environments. Another option that is worth considering is using concave roller dies for tube marking. The benefit here is that the method is very quick and relatively low cost. However, this process is suitable only for adding fixed information, as the mark is not easily changeable, so they are not suited to serialisation.

It is more cost efficient to incorporate new dies into existing machinery, as the capital outlay on the dies is significantly less than that of buying new machinery. Integrating roller dies provides consistency of depth and allows for continuous marking.

With custom built dies, they are usually used for marking fixed information, such as CE marks. However, there is the option of using composite dies, where some elements of the mark are fixed, but some are interchangeable. These are custom built to fit the requirements of an existing machine, which means there are no modifications required.

When it comes to products such as roof tiles that are made from moulds, custom-designed dies are often the best approach. Here the CE mark and identification code is added to the mould, which means that the mark does not add another manufacturing process. This is a very durable method of marking. Composite dies can be chosen and used within moulds, which require that some of the information will remain constant, but some of it can be made interchangeable, for instance, batch number/product code.

Dot marking is a popular method of marking with construction companies. The mark here is made up

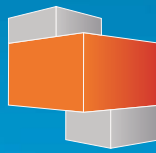


of a series of dots, which is a particularly 'low stress' method that does not have a major impact on the product surface or integrity. Dot marking is computer controlled to guarantee dot precision and we use bespoke software designed by our engineers. It is ideal not only for CE marking, but also for conveying variable information, such as batch or serialisation, as it can be set to increment after each mark or number of marks. The software also has features such as non-repetition, to ensure you cannot mark the same number twice.

If the marking technology is required for large, heavy or immobile parts, such as scaffolding, steel girders and frameworks, dot marking can be the best option as it works well as a portable unit, which can then be taken to the material to be marked. Dot marking is fully programmable, so the mark can change every time – this is ideal for use where there is serialisation or batch coding. Another popular method is scribe marking, which creates a smooth, aesthetically pleasing continuous line mark.

Laser marking is growing in popularity with building product manufacturers too, as it can be used to mark the widest range of materials. It offers great degrees of flexibility, such as varying depths and colours, making it highly suitable for logos.

With any construction product to be CE marked, or indeed with any mark, tests would need to be carried out by the marking company to ascertain the most appropriate method. With CE marking still being a relatively recent requirement, a lot of work is being done to ensure that manufacturers are able to meet the EU directive in the most effective way possible.



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You only get one chance to make the building meet the airtightness levels you hoped for, so choose the best membrane for its intended purpose and install it where it can be protected from follow on trades and future occupiers.

Airtightness is increasing in importance as designers seek to improve their energy efficient measures without the need for extra thickness insulation thus losing valuable foot print dimensions especially in city centre commercial buildings.

The A. Proctor Group always strives to provide construction professionals with alternative, cost effective and easier to install solutions and the introduction of its air barrier systems are exactly that.

AIRTIGHTNESS OUTSIDE

With over 10 years' experience of providing the harshest climates (both hot and cold) in North America, the Group is promoting the external application of the airtightness strategy membranes in the UK.

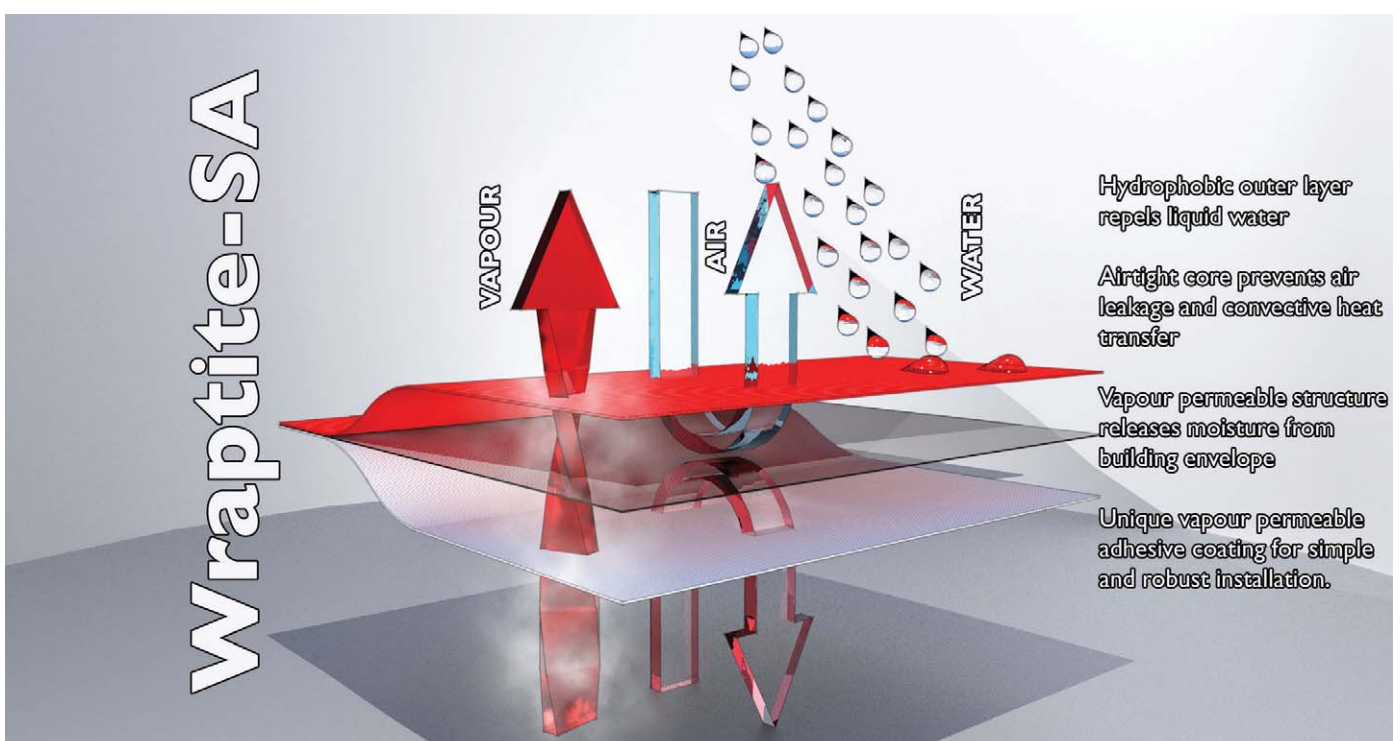
The UK has up until now assumed that sealing the building from the inside was the best route to meeting increasing airtightness regulations, this has predominantly included sealing up the Vapour Control layer, or Vapour Barrier, as some refer to it. This can make sense from a building physics point of view and help reduce condensation, but the actual application can be fraught with problems when striving for low levels of airtightness.

Some building designers, especially domestic, simply do not want low levels of airtightness (sub 3) as this would require a ventilation system which incurs additional costs, maintenance issues and one that most homeowners would be resistant to. However, most commercial buildings will have adequate mechanical ventilation systems that alleviates these resistance factors to low airtightness so would benefit greatly from striving for the lowest possible airtightness results meaning lower fuel consumption as less cold air infiltration and warm air escaping.

The application of either Wraptite-SA or Wraptite externally as the airtight layer allows for a more continuous air barrier with less protrusions and difficult detailing to that of internal air barriers. There is less chance of the membrane being damaged by following trades, therefore making the designer more confident that their airtightness strategy is implemented as intended from drawing board to site. There is no requirement for difficult accessories around joists, pipe penetrations, light switches or electrical cabling.

From the earliest examples of weather boarded barns to modern skyscrapers, rainscreen construction has been part of the built environment for hundreds of years. Today, with increasing energy performance requirements, and intense competition between designers to produce unique, aesthetically innovative and eye catching structures, the flexibility offered by rainscreen systems is more important than ever.

In a typical rainscreen curtain wall construc-





Using an external air barrier greatly reduces the amount of time spent on difficult detailing, and with less to go wrong, there's less chance of encountering expensive remedial works too

tion, the insulation is placed continuously over the structural frame and overlaid with a secondary weatherproof layer. The outer cladding is then fixed on rail systems, giving a drained and ventilated cavity between the insulated structure and the facade. This gives several advantages, not least by fully insulating the frame and substantially reducing cold bridging compared to in-frame insulation. This setup also allows for increased design flexibility, as the outer leaf can be lighter than traditional brick facades, and can therefore adopt more unusual layouts and configurations that would be difficult or impossible to achieve with traditional facade materials. It is also comparatively easy to retrofit insulated rainscreen systems to existing structures, giving a simple path to improving both appearance and energy efficiency.

REDUCING AIR LEAKAGE

In most rainscreen systems, the outer cladding panels are not fully wind and watertight, making

the performance of the secondary weather protection membrane more critical than with brick or blockwork outer leaves. While most such membranes have adequate air barrier performance, they are heavily dependent on quality of installation to ensure the overall air leakage rate targets are met. Failure to meet the specified targets can cause substantial increases in the energy performance of the completed building, and this 'performance gap' has been identified in many studies of predicted vs. actual building energy use.

Positioning an air barrier on the outside of the insulation rather than internally simplifies this process considerably, as there are less building service and structural penetrations to be sealed, however careful consideration of the specification and installation of this barrier remains critical during design and construction. While such construction is not widely used in the UK, the A. Proctor Group's Wraptite external air barrier system provides a simple and robust solution that can be easily incorporated into existing site practices.

Wraptite-SA, fully vapour permeable self-adhesive air barrier, is available either as a membrane or as a fully permeable tape, with a unique vapour permeable adhesive backing. This allows a simple and fast installation procedure, with the fully adhered membrane sealing to all common substrate materials. Its microporous film core ensures a low air permeance of $0.01 \text{ m}^3\text{m}^{-2}\text{hr}^{-1}$ while maintaining a high permeable to water vapour, with an sd-value of 0.039 m. This versatile, high performance material can be used in full wall applications, at floor cassette or corner junctions or as an adaptable

site-formed airtight flashing around door and window penetrations, providing an airtight seal without compromising moisture movement.

In tape form, Wraptite-SA can be used to seal panel joints in airtight substrates such as OSB, or used to seal penetrations from services or structural elements. Its excellent adhesion characteristics also make it an effective method of jointing conventional air barrier membranes, thus maintaining a high vapour permeability envelope across the entire building.

For nearly 30 years, the A. Proctor Group has been at the forefront of construction membrane technology. From the revolutionary air/vapour permeable Roofshield underlay to the low emissivity Reflectashield timber frame breather membrane, the A. Proctor Group continually works with suppliers and research organisations to ensure that its products meet the most advanced technical requirements while providing exceptional value for customers.



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CARRYING THE LOAD

The requirement for cantilevered walkways at a major housing refurbishment project presented a number of thermal connectivity challenges for manufacturer Schöck. Building Products reports on the project.

Kidwells Estate, on the outskirts of Maidenhead in Berkshire, is undergoing major regeneration involving seven new blocks, which are part timber clad and vary from three to six storeys of structural concrete frame. Long cantilever walkways that service multiple flats are a feature of the new development and the unusual design demands of the walkways presented a technical challenge for Schöck, which supplied the structural thermal breaks.

The former Kidwells Estate, now known as Parklands, is a landmark £27.1m project, scheduled for completion later this year. It is a scheme for One Housing and replaces seven 1960s built apartment blocks. The redevelopment will provide 204 new mixed tenure high quality homes, consisting of 75 homes for rent to existing and new tenants, nine shared ownership homes and 120 homes for private sale. On completion, the development will provide three and four bedroom family homes, as well as one and two bedroom apartments. One Housing manages over 15,000 homes across 27 London boroughs and surrounding counties and in the last three years has delivered more than 1,500 new affordable homes, with plans to build a further 3,600 by 2019 to help meet the housing shortage.

DEFYING CONVENTION

Schöck, which supplied the structural thermal breaks at Parklands, was faced with an unusual technical challenge as a result of the unconventional requirements concerning the cantilever walkways. The challenge came about because the design consideration, both aesthetically and for the benefit of residents and visitors, required the availability of as much natural light as possible in the areas around the cantilever walkways. To meet this requirement, extensive light wells have been introduced at regular intervals



along the length of the galleries.

These wells are effectively a series of elongated spaces, which separate the walkways from the building for large sections. As a result, there are far fewer structural connection points between the walkways and the building than would normally be anticipated, so the connectivity opportunities are very limited. The walkways themselves are cantilever concrete construction into internal reinforced concrete frame, and because of the restricted connectivity point opportunities, the Schöck structural thermal breaks had to resist a much greater shear load than would be the case with a more conventional design.

In addition to this, the support condition of the external columns and edge beams also had to be taken into account, and there was a limitation too on slab thickness for the dowel connections.

SUPPORT NETWORK

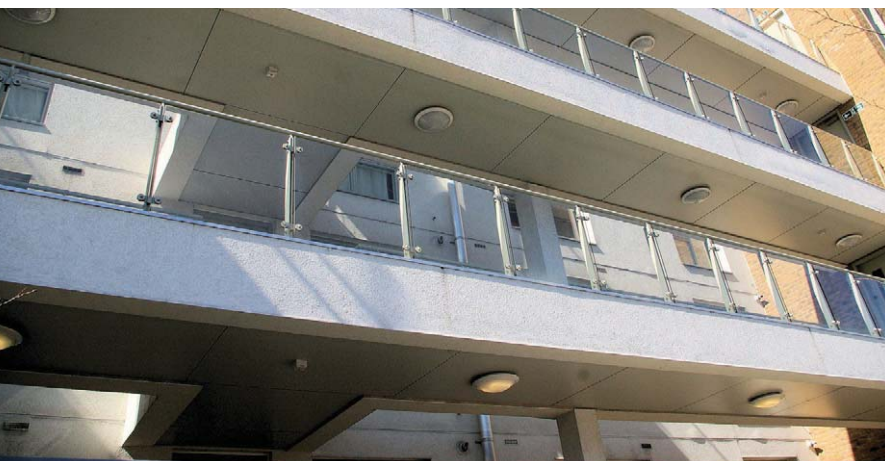
The solution required a relatively unusual

combination of products and Schöck resolved the various issues by designing in its type HPC Isokorb. It is a product utilised only if horizontal, tension and compression forces are present in the design, and additionally it is necessary to integrate the type QP90+QP90 Isokorb as well, for linear or point connection to support high shear loads. Schöck type SLD Q50 heavy duty stainless steel dowels were also incorporated to enable the transfer of vertical shear forces and allow two directional lateral movements at the expansion joints. The result was a completely secure thermally insulated load-bearing connection at all of the restricted, but key structural points.

The Schöck Isokorb structural thermal break range enables connections to be made between concrete-to-concrete, concrete-to-steel and steel-to-steel. The many different unit types available, combined with their ability to enable the transmission of shear, bending moment, tension and compression forces, also means that the options available effectively run into hundreds when the different combinations are taken into account.

All units provide BBA Certification and LABC Registration and Schöck says they meet full compliance with the relevant UK building regulations. The requirement described in BRE IP1/06 – a document cited in Building Regulations Approved Documents Part L1 and L2 and Section 6 in Scotland – that the temperature factor used to indicate condensation risk (f_{RSI}) must be greater than, or equal to, 0.75 for residential buildings, is met by incorporating the Schöck Isokorb.

Fewer structural connections throughout the walkways meant that Schöck's structural thermal breaks had to resist a much greater shear load than in a normal application



COMPLETE CONTROL



Tennant, marketing director at Cyberhomes, explores the ways in which home automation technology can benefit end users, from security uses to energy management applications.

There is a clear trend today towards a flexible, user-friendly approach to the remote control and programming of devices in homes and other buildings, enabled by the latest intuitive software. For example, home automation can allow owners to check and adjust heating, lighting and other functions using smartphones when they are not at the property. Smart technology also allows discreet CCTV cameras and door or gate entry systems to display on smartphones, as well as on touch-screen control panels throughout the property.

Owners also want to have as little technology on show as possible, minimising 'wall clutter' and other impacts on the look of their interiors. Now, every light in and around the property can be dimmed or switched on and off with touch-screens in the house and occupiers' smartphones, as well as discreet local wall panels replacing conventional light switches. Pre-set scenes can be added to create specific lighting moods, which can form part of interior design schemes.

SECURE SURROUNDINGS

From a security perspective, all the lights in a building can be turned off with a single button, or lighting can be set to holiday mode, with simulations creating the impression that the property is still occupied. Integrating intruder alarm systems with home automation is a particularly powerful tool, allowing additional actions to be triggered automatically. For example, when the intruder alarm system is armed, lights can be automatically turned off, vacation mode occupancy simulation started and heating levels reduced to save energy. Then, when the alarm is disarmed, an entry lighting scene automatically activates and the heating returns to comfort levels.

However, home automation can make the most of other devices as well. Whilst the intruder alarm system is unarmed,

security sensors can be used as occupancy detectors, triggering actions such as turning lights off if rooms are unoccupied for a period of time, or turning off heating in a room if a window is opened.

CHANGING ROOMS

There is also scope to change the character of a room with a sequence of pre-programmed actions. Although Cyberhomes designs dedicated home cinema rooms for many luxury properties, very often a single room has to work both as an everyday living space and also a high-specification 3D home cinema. With home automation, a single touch of a button can cause a projector to descend from the ceiling, a projection screen to gently lower in front of the TV, lights to dim and motorised blinds to close.

Multi-room audio and video systems are also growing in popularity. Discreet ceiling speakers in various rooms and external speakers in the garden can be organised into audio zones to suit occupier lifestyles, each providing music and sound selected from the central AV system. Similarly, video content from multiple, centralised sources – such as Sky, Virgin TiVo and Apple TV boxes, Blu-ray discs and movie servers – can be streamed to TVs located anywhere in the building.

In such situations, technical specifications and acoustic treatments to produce the best sound quality and user experience need to be carefully balanced against the aesthetic characteristics of the room. For example, in some projects Cyberhomes has designed bespoke cabinets to house a retractable cinema screen and front speakers. Speakers can also be hidden behind removable, 'acoustically-transparent' fabric panels to minimise visual impact on the room.

Looking to the future, home automation technology continues to develop apace. One interesting new technique is 'geofencing', which will allow a smartphone to detect its owner's location and communi-



cate with the building system, for example to automatically turn up heating an hour before arrival, then turn on external lights and open the gates upon approach. It can even identify who has arrived and turn on a TV set to that person's favourite channel for that time of day.

PLAN AHEAD

It is essential to involve smart home specialists in building projects from the start. They can then work closely with architects, developers, interior designers and M&E consultants to optimise integration of the system with the overall building design and performance. This will also ensure that accommodation of the extensive cabling needed, provision of a suitable plant room and minimisation of visual impact from equipment are all effectively catered for.

Reliability and long-term performance are key to the success of this advanced technology. The necessary racks of AV equipment should be built and tested, and all the wiring looms created in a controlled environment off-site. This will minimise the connections and other work on a building site. Wireless networks should be avoided for fixed equipment as they are generally not reliable or fast enough, and suffer from 'dead spots' as well as interference from other electrical items. Wireless is usually only suitable for devices that need to be handheld or portable such as remote controls, smartphones and tablets.

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OPENING UP HOMES



Fergus Pickard, product development director at P C Henderson, looks at how folding and sliding door hardware systems can improve and expand living spaces by taking into account key necessities, including design and security.

For the modern home, flexible living is now a priority as many seek to create more space or maximise their existing room. Folding and sliding doors (FSD) can help achieve these desired features as changing lifestyles and rising living costs are making people demand more from their homes.

THE OUTSIDE LOOKING IN

Aesthetics play an important role in the specification of external FSD systems for the modern home. Slim sight lines, expanses of glass and the feeling of space are some of the key benefits to be gained.

Sliding doors offer different options to folding doors when considering the look and functionality of a space. Sliding doors have the advantage of having individual door panels that can be significantly larger than folding door panels. When closed, it results in more glass and less frame producing excellent sight lines. For example, the Imperial from P C Henderson is a bottom rolling system that accommodates doors weighing up to 200 kg. The system is designed for applications with limited headroom or where the structure or lintel is insufficient to hold the weight of the doors. Imperial is designed to be flexible as any number of doors can be used on single or multiple lines of track to cover any width of opening.

Folding doors on the other hand, when fully open, use up a small fraction of room, allowing for an uninterrupted flow between the indoor and outdoor spaces. However, considering the opening size and multiple points to secure, the gear system used has to perform highly and be secure to meet everyday demands. Hardware such as P C Henderson's Securefold range offers the functionality and specification required to match these demands. Accommodating door weights of up to 100/150 kg, the system has undergone extensive cycle testing in accordance with EN 1527 where it has achieved in excess of 100,000 cycles.

Furthermore, the range's Securefold Ultra system offers an enhanced layer of security with components certified to PAS 24, BS EN 1627 RC2 and is accredited Secured by Design.

INTERIOR OPTIONS

Internal living spaces can be transformed with the use of FSD systems as they can increase a home's floor space and allow more light into a room. This is achieved by eliminating the room needed by a conventional swing door to swing and function. FSD hardware offers versatility in room configuration to create flexible living spaces, as well as providing clever storage solutions. Pocket doors are ideal for smaller spaces such as en-suite bathrooms and cupboard doors as they glide and stow away neatly in the wall cavity, freeing up the space taken by swinging doors.

Sliding door systems can add flexibility when used as room dividers, increasing and decreasing space to meet demand. When closed, room dividers can help reduce heating costs as only the space in use needs to be heated.

A system such as the Husky Telescopic 80 works well as it allows large timber doors of up to 80 kg to become neatly stacked sliding partitions. The system is also designed to be discreet as it does not require a guide channel, meaning there are no dust traps or trip hazards. The Telescopic 80 uses a toothed belt and pulley system to link the doors together meaning all of the doors travel simultaneously with minimal friction and noise.

SAFE AND SECURE

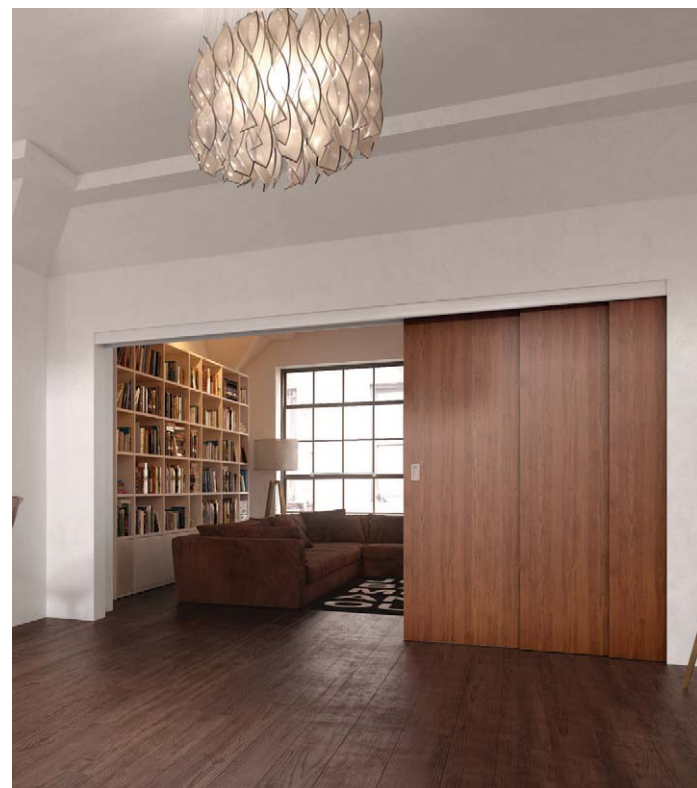
The latest security feature for FSD systems is Secured by Design. SBD is owned by the Association of Chief Police Officers (APCO) and supports the principles of 'designing out crime'. SBD focuses on crime prevention and promotes the use of security standards for a wide range of applications and products. The princi-

ples of SBD have been proven to achieve a reduction of crime risk by up to 75%.

To further ensure security and robustness, FSD systems should also undergo performance testing. Currently, there are two main standards to look out for which test for burglar resistance – the European standard, EN 1627, and the UK specific standard, PAS 24. Both standards look to confirm that hardware systems have passed the prescribed tests, offering an enhanced security performance from attack.

In addition to security, systems should also be corrosion resistant and made from 316 marine grade stainless steel, to meet the extremes of British weather. They should undergo tests for airtightness, water tightness and wind resistance, and seals should also be used to ensure that the door is sealed from external elements. With all considerations taken into account, homes can benefit from highly functional doors that are safe, secure, energy efficient and weather-tight.

FSD hardware saves room space when compared with conventional swing doors that require areas to swing and function



BP



EXTERIOR DOOR SYSTEM ADDS A TOUCH OF BRASS

RUNDUM MEIR specialises in high quality, standard and custom-made exterior door systems made from a range of materials, including solid timber, copper, aluminium, bronze and glass.

In plan, the doors can be designed to be curved, straight or even wavy.

A recent project involved a bespoke side sectional patinated brass door, which was fitted to match the external facade of a new build house in central London.

Rundum exterior door systems have been used on listed buildings, award-winning new build, conceptual architecture, refurbishment projects and a high profile passive house.

• 0151 280 6626 • www.rundumuk.co.uk

INSULATION INSIDE AND OUT

KINGSPAN INSULATION's Kooltherm Internal Wall Insulation System was recently selected for the refurbishment of four 10-storey residential towers in Dundee.

Kingspan Kooltherm K18 Insulated Plasterboard was installed on a new timber batten frame to the inside of all external walls, as well as on all internal partition walls. Kingspan Kooltherm K10 Soffit Board was also applied to the ceiling. The products feature a fibre-free core and are manufactured with a blowing agent, which has zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP).

• 0154 438 7384

• www.kingspaninsulation.co.uk



REPLICATING SANDSTONE AT APARTMENT COMPLEX

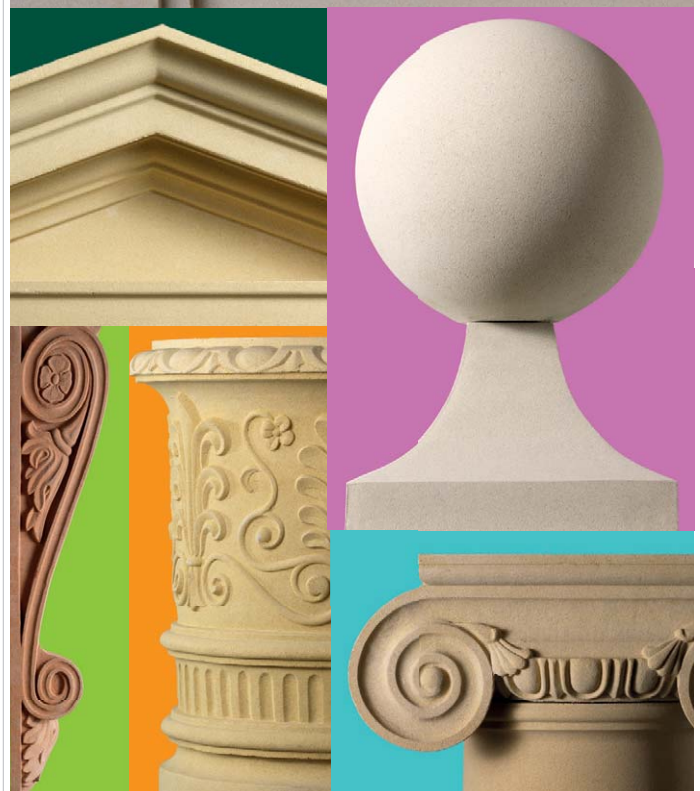
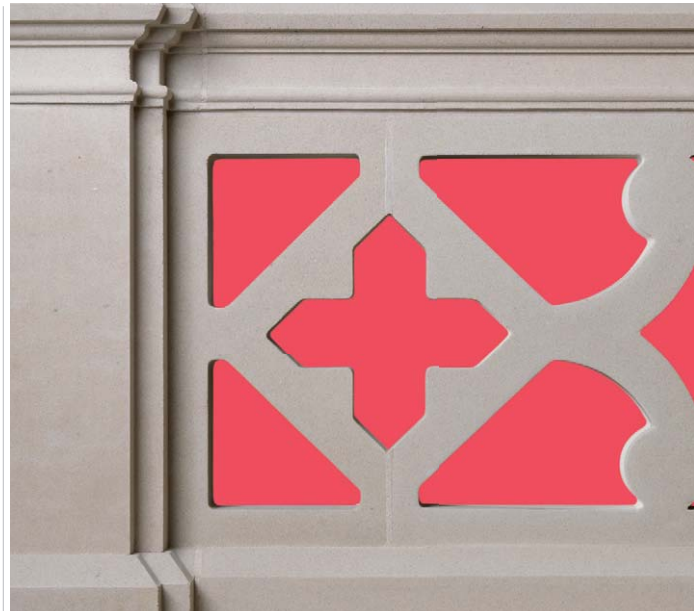
FORTICRETE's Anstone Stone Walling and Cast Stone detailing were recently specified by Bovis Homes for the construction of Marmaville Manor, in Mirfield, West Yorkshire. The apartment complex was built using Anstone Stone Walling in Premier Regency Buff, designed to emulate Yorkshire sandstones.

Walling stones with a 140 mm course height were built in three different

lengths, alongside 135° Quoins on the corners. Cast Stone items, including window surrounds, roof copings, plinths, keystones, chamfered quoins and arched surrounds were also specified.

• 0190 977 5000

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INTELLIGENT LIVING TECH TRANSFORMS THE HOME

WONDRWALL has recently launched an intelligent in-home technology system, which is designed to transform the home into a living, learning ecosystem that understands and adapts to the behaviours of its inhabitants.

The technology combines and controls the home's heating, lighting and security systems. The company says that rather than offering remote control functionality for home appliances through an app, as many smart technologies do, Wondrwall is compatible with all existing appliances. The system activates and deactivates household appliances as required without needing the user to do anything.

Wondrwall technology is also designed to heighten home security by using the systems' audio analytics to identify the sound of a smoke alarm or smashing glass, triggering the siren, flashing the internal lights and sending an emergency notification.

• 0161 826 9139 • www.wondrwall.co.uk



SHEET FLOORING DESIGNED FOR HOUSING

POLYFLOR has launched Designatex, a textile-backed sheet vinyl flooring which has been designed specifically for the home.

The Designatex range includes 12 wood effect and six stone effect designs. The wood collection features a variety of wood species and layouts including three parquet designs. The Designatex stone collection features limestone, slate and paving effect designs in three layouts, including slim tiles, random tile placement and varied tile widths.

The range is available in two, three and four metre widths with a 3 mm gauge and 0.3 mm wear layer and SureTread R10 slip resistance. The UltraComfort soft textile layer on the underside has been designed to provide warmth and comfort underfoot as well as reduce noise with a 17 dB impact sound reduction.

• 0161 767 1111 • www.polyflor.com



COUNCIL MAISONETTES GET ALARM UPGRADE

AICO's RadioLINK smoke alarm system has been specified by Sheffield City Council for its maisonette properties.

The properties now feature the RadioLINK mains powered smoke alarms, which provide wireless alarm interconnection. RadioLINK allows Aico smoke and heat alarms to be interconnected using Radio Frequency (RF) signals, eliminating the need for interconnecting cabling, saving time and disruption.

Aico Ei166RC optical smoke alarms were fitted in the escape routes of all 2, 200 maisonettes owned by the Council over a two year period. They were used to replace the battery powered alarms, upgrading their former BS 5839-6 Grade F system to a BS 5839-6 Grade D system.

The alarms incorporate 10-year plus rechargeable Lithium cells to provide over six months of back-up power in the event of a mains failure. They are available with a range of added accessories, including carbon monoxide alarms, alarm controllers, call points. They can also be integrated with third party systems such as sprinkler and warden call systems.

• 0169 166 4100 • www.aico.co.uk



RAISING THE THERMAL PERFORMANCE

The **KINGSPAN** OPTIM-R Balcony & Terrace System and Thermarof TR27 LPC/FM have been installed as part of a roof terrace retrofit on a house near Cheltenham, helping to minimise heat loss whilst maintaining the existing floor level.

As part of the retrofit, the terrace was stripped back to the existing plywood deck and BPN Architects used the opportunity to raise the thermal performance of the roof above the Building Regulation requirements. A vapour controlled layer was laid above the plywood deck, followed with the 40 mm thick Kingspan OPTIM-R Balcony & Terrace System and a 25 mm Kingspan Thermarof TR27 LPC/FM overlay. A waterproof membrane was then installed above the insulation and the terrace paving was fitted on support pedestals.

Kingspan OPTIM-R panels have an aged thermal conductivity of 0.007 W/m-K and feature a microporous core which is evacuated, encased and sealed in a thin, gas-tight envelope. The Balcony & Terrace System also incorporates Flex infill panels, which can be cut to fit around penetrations and used to fill any small gaps in the insulation layer.

• 0154 438 7384 • www.kingspaninsulation.co.uk

HEBRIDES HOLIDAY HOME HARNESSES RENEWABLE HEAT

A remote holiday home on the Isle of Skye has been fitted with an F1245 ground source heat pump (GSHP) and exhaust air package system from **NIBE**.

The package is made up of an 8 kW GSHP, an indoor unit complete with integrated 180 l hot water storage cylinder and built-in controls, a 100 l buffer tank and a Nibe FLM exhaust air module. As well as harnessing renewable heat from a 150 m external borehole to provide space heating and hot water throughout the year, the Nibe FLM module also uses a heat recovery and air recycling system to ensure temperature-controlled ventilation.

The system is also equipped for use with Nibe Uplink, an online monitoring and control programme that allows remote access to the system via a secure login. The installation is also eligible for the Renewable Heat Incentive (RHI) scheme, which means it can generate on-going payments for the heat the GSHP produces.

• 0845 095 1200 • info@nibe.co.uk



FIFE COUNCIL INSTALLS 30,000 AICO ALARMS

Fife Council is undergoing a programme to install 30,000 of **AICO's** Ei414 Fire/Carbon Monoxide (CO) Alarm Interfaces throughout its housing stock.

The Ei414 is designed to provide a dedicated connection between Aico RadioLINK Smoke, Heat and CO alarms with most new and existing Telecare/Warden Call Systems, enabling an emergency signal to be transmitted directly to that system if fire or CO is detected.

The alarm can be powered directly from the mains or via a 12-24 V DC supply, such as from the Telecare/Warden Call Systems, for example. It also has built-in tamper-proof rechargeable Lithium Cells which will power the device in the event of any mains failure.

• 0169 166 4100 • www.aico.co.uk

01473 820850

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ON THE TABLE

Housebuilding

The residential market continues to exceed growth expectations, however there has been growing consensus in recent months that action over materials, skills and speed of building must be taken soon in order to safeguard the sector's future prospects. Our four panellists examine the key issues affecting housebuilding and put forward their recommendations for the newly elected government's next steps.



Chris Hall
CEO,
BRUFMA



Thomas Hagen
Technical manager,
Internorm



Lee Hartley
Commercial operations director,
Novus Property Solutions



Max Crosby-Browne
CEO,
Spacepro Contract

Q The Government target for all new homes to be built to a 'zero carbon' standard is still expected to come into force in 2016, despite the lack of a clear definition of what zero carbon actually entails. Do you think it will still launch next year, and what's your view on how the policy has been handled?

MC The term that always comes to mind around the 'zero carbon' standard is that we bit off a little more than we could chew, especially within the wider political and economic context, therefore a back track was inevitable at some point.

The exemption of SME developers is interesting because one would have thought that homebuyers would be more likely to buy from developers who are constructing higher quality homes so their exemption from the policy could be self-defeating. However, this comes back to consumer understanding, perceptions and priorities. Is low carbon high on the list of priorities for homebuyers? Do they understand it and the long term benefits it can deliver? A significant move, such as the move to sell homes on the basis of labelled energy performance, may be needed to drive this.

CH The optimist in me would like to think that this was still a realistic target, but given that we have an incoming administration that needs to find its feet, the more pragmatic view might be that it would be better to wait and get something that was not rushed. The Zero

Carbon Hub (ZCH) has done a sterling job in promoting the concept, against governmental headwinds and a growing scepticism in industry that this is just not achievable. ZCH should be allowed to continue past 2016 for sure.

TH Despite the fact that the term 'zero carbon' is still not entirely clear, due to the Kyoto agreement, the government has to make this work.

The Kyoto Protocol is an international treaty, which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC). The protocol commits State Parties to reduce greenhouse gas emissions, based on two factors: global warming exists and man-made CO₂ emissions have caused it.

For this, reducing energy use in homes has become significant, particularly since CO₂ emissions arising from energy use account for more than 30 billion tonnes each year, nearly half of which are the result of energy use in homes. As such, the Government's target for all new homes to be built to a 'zero carbon' standard by 2016, is key for this protocol and therefore provides a greater need for it to be ultimately met.

Q The new Government has set a target to build 200,000 homes a year by 2020. Is this target achievable, and if not, what measures would you recommend implementing to help increase supply?

LH We feel that the government's target to build 200,000 homes a year by 2020 is both ambitious and challenging. If it is to be met then significant improvements in the availability of skilled labour will first need to be achieved. A key part of the strategy to tackle this crisis should be to encourage more workers into the industry through apprenticeships, which in turn need to be supported by the necessary funding and training frameworks. In addition, it is essential for the revisions in planning legislation to be implemented successfully in order to speed up the process of releasing sites for development and meet the target set in the next five years.

CH I do not know on what figures the government based their targets, but from a PIR manufacturer's perspective, there would be sufficient capacity within our sector to cope with the increase in demand. However, availability of land, and a skills shortage will make this a real stretch for the housing industry. Manufacturers need stability and some sense of continuity of policy to make long term investment decisions while cross party agreement on a consistent policy would provide the industry with a greater confidence to make capital investments.

MC The crux of the issue that most are agreed on does not seem to change here – the UK is not building enough homes. In 2014, according to the National House Building Council, there were just 145,174 new homes registered – significantly

lower than the estimated 210,000 new households the Office for National Statistics predicts are being formed a year. It's good news that the Home Builders Federation (HBF) has recently reported that last year, "137,310 new homes were started, up 10% on 2013 and 60% above the 'trough' in 2009", but whilst initiatives such as the recently announced ISA may help some first-time buyers to own a home, it all feels very short term and fails to address the root cause around actual construction of more homes and the significant funding and process simplification required to make that happen.

It's clear that we still need to do much more to drive forward a simpler, faster planning and approval system, hand in hand with improving consumer education and perception around both the provision and quality of new homes to avoid the 'NIMBY' effect, which has the power to slow down every application with enough community support.

"Until consumers are more 'energy savvy' and encourage housebuilders to amend their offer accordingly, housebuilders will continue to provide exactly what the consumer asks of them, namely less expensive capital cost houses"

Chris Hall, BRUFMA

Q Are material shortages, and consequently increased lead times and higher prices, an issue for residential developers, given the pace of growth in residential construction? What have been your customers' concerns, and how can they be resolved?

CH The results of the major private housebuilders would seem to suggest that whatever increases they have had to bear they have recouped. Housebuilders had found alternative ways to build if a particular product shortage leads them to a different solution. The PIR sector has a relatively consistent supply chain and product shortages have not been an issue. **MC** Recovering from the kind of recession we've seen was never going to be easy and acute shortages in labour, skills, materials and logistics was to be expected, especially given the rate of growth in residential construction. Our customers are generally concerned about availability of product (for the long term), the price of that product (and future fluctuations) and the necessary supporting labour to actually deliver and install on site, demonstrated by increased demand for our national installation service. We know from speaking to our customers that this is a challenge across the board from aggregate supply through to bricks and block paving.

LH Yes, we continue to experience significantly extended lead times as a result of material shortages, and in particular brick supplies. Whilst the larger national housebuilders are able to secure large



volume up front orders, as a smaller regional contractor we do not share this privilege, often leading to us 'fighting over the scraps' and paying higher prices.

As a result of the new government housebuilding targets, we foresee this problem worsening before it improves, and this is a concern many of our clients share. We are working with our clients to combat this through early project involvement and by adopting innovative procurement routes to allow for early material procurement. Client flexibility in terms of material choice has also proven critical in avoiding project delays and working within project budgets. In addition to the materials shortages, we also anticipate the lack of skilled labour available as a cause for concern which needs to be addressed going forward.

Q What changes have there been recently in terms of specification of faster construction techniques/faster install products/systems, in order to help meet increased demand?

MC We've seen increased demand for our cradle-to-grave turnkey offering, especially our nationwide installation service which supplies to site and manages the installation process from regional hubs. From initial survey through to supply and fit, including surveying each plot ahead of delivery, we offer a one stop shop for housebuilders to ensure smooth installation of volume wardrobe systems for their developments. With increased pressure on housebuilders, we're finding the appetite for this kind of end to end delivery is growing in popularity, driven by tight construction timetables and lack of onsite resource.

CH Some housebuilders have increased

the amount of off-site construction and pre-assembled components. The supply chain has reacted positively by providing housebuilders with baskets of materials selected and delivered on a house type basis to reduce time and waste on site. The move towards dry construction has assisted, but sometimes at the expense of quality. We have to be careful to ensure that quality of the final build is not compromised by the 'need for speed'.

Q Are the current strategies aimed at upgrading the efficiency of our existing housing stock (Green Deal, ECO etc.) working? If not, what are your thoughts on how they can be improved?

TH There have been a number of incentives introduced to drive energy efficiency and I think it's fair to say many of these haven't been hugely successful, something which has been widely publicised. In my opinion, much of the failure is due to the focus being in the wrong area.

If we consider the fact that a building can lose approximately 25-30% of its energy through the windows and a similar amount through the outside walls, the building's envelope should be where the focus is. This is exactly the case when building to Passivhaus standard where its main design features are sufficient insulation, quality building products and work, and the location of the glazing to get the best of the sun. Compared with a standard house, a Passivhaus can save up to 90% of the costs of running a home. In fact, Passivhaus is the most energy efficient building type on the market.

Although Passivhaus is mostly considered on new builds, if the certification criteria for a Passivhaus is met when



refurbishing a building then it is possible to certify the building as a 'Quality-Approved Passive House'. Buildings that have been refurbished using Passivhaus components and largely with exterior wall insulation can be certified to the EnerPHit standard as evidence of quality assurance and to verify achievement of the specific energy values.

CH Absolutely not working. The Green Deal is dysfunctional in its current format. There appears to be a lack of understanding of the potential economic and social benefits of a long term focussed approach on thermal upgrading.

The Lib Dems had the most sensible approach to the issue. The one party that appeared to be explicitly flying the green flag for its own sake, with separate sections on Climate Change – including 'Green Homes' – and the Environment in its manifesto, was the Lib Dems. Its 'Five Green Laws' were claimed to be at the heart of the party's manifesto, and they included a Green Buildings Act, incorporating a sensible-sounding 'Pay as You Save' loans scheme. That would fund renewable heat and electricity alongside energy efficiency improvements. Also, its pledge to tackle solid wall properties using a 'Feed Out Tariff' to enable the fuel poor to fund insulation improvements is one of the best ideas I have heard yet for meeting this tough challenge.

A statutory commitment to bring all fuel poor households up to band C by 2027

appears to not only be reasonable, but well timed too. The current government should consider adopting some of these policies, rather than supporting fracking as the answer to our energy needs. Fabric first is a far more sensible approach.

MC The impact of the Green Deal has been limited, down to poor consumer engagement and education. Whilst presenting a great opportunity for many small to medium contractors in the building sector, any initiative like this will always need to be consumer driven and the investment just wasn't there to drive the awareness. Given the timings and the economic climate amidst which the Green Deal was trying to get 'lift off', gaining traction was always going to be tough.

Q Have the Government's attempts to improve the planning system had any effect on the ground? Should the planning laws be relaxed further to allow for a greater number of new developments/conversions?

CH Whilst doubtless relaxations in the system have made the lives of the house-builder somewhat easier, there needs to be some mechanism that encourages house-builders to build quickly once they have the necessary approvals. Getting approvals and then waiting months or years to develop seems to defeat the object of the improvements in the system.

TH Certainly from what we've seen in terms of developments and conver-

sions being on the increase, it would suggest that the attempts to improve the planning system have had an effect. However, far more developments are still needed and, for this, we feel that planning laws should be relaxed further.

MC The HBF called upon the government again recently to address delays in the planning system so that planning permissions could be processed more quickly, allowing housebuilders to get on site sooner. This clearly remains a priority to improve the speed at which we can build new homes. An area of great contention and complexity continues to be brownfield policies and again we believe this comes down to both further review of existing policy as well as a significant investment in consumer education. Hopefully now that the general election has taken place, local plans will be able to more aggressively move forward.

Q What is your experience of value engineering in the housing sector? Is cost the number one driver when specifying, or are we starting to move more towards considering other factors such as energy efficiency?

LH We find that the importance of value engineering and the consideration of build cost versus energy efficiency varies considerably from client to client. Our experience suggests that most clients understand the meaning of 'best value' better now than ever before and rarely do we find that they are simply seeking the lowest build cost. In fact, greater importance is placed on the lifetime and running costs of completed homes and we find that most value engineering is focused around this aspect. Energy efficiency plays a large part in this but other factors such as material specification, building layout and so on are also key considerations.

MC We work with housebuilders (from both the design and pre-construction stage) to advise on best storage solutions, proposing products with functionality/design appropriate for the budget specified. Cost is always an important factor in the brief, with many surprised at just how cost effective volume and bespoke sliding wardrobe solutions can be, but an increasing number of housebuilders are also interested in exploring the actual value of flexible space and storage solutions to the homebuyer, which is something we have researched and know to be significant.

When the commercial value of a solution is understood, the emphasis

“Client flexibility in terms of material choice has also proven critical in avoiding project delays and working within project budgets”

Lee Hartley,
Novus Property

often shifts to a proposition focused more on quality, suitability and longevity. Value engineering clearly has an important place but with an increased focus on lifetime homes and whole life cost (particularly in the area of energy efficiency), it's important that housebuilders stay in tune with consumer appetite for these elements and their associated value.

TH Cost is always one of the most important factors and this won't ever change. However, instead of just considering the upfront costs, the lifetime costs is where the focus really should be and, of course, energy efficiency feeds into this. This is an area that Internorm emphasises a great deal and is certainly something that people are understanding much more.

CH Cost seems to be the driving factor in the majority of cases, but not all. Until consumers are more 'energy savvy' and encourage housebuilders to amend their offer accordingly, housebuilders will continue to provide exactly what the consumer asks of them, namely less expensive capital cost houses. Running costs appear to play second fiddle – and until consumers start to question that, the industry will continue to focus on driving out cost.

“It's clear that we still need to do much more to drive forward a simpler, faster planning and approval system, hand in hand with improving consumer education and perception around both the provision and quality of new homes to avoid the 'NIMBY' effect”

Max Crosby-Browne, Spacepro Contract

Q Do you think the withdrawal of the Code for Sustainable Homes (CSH) is a positive or negative development? Are alternatives such as BRE's Home Quality Mark likely to carry the same weight as the CSH, or will the standard's removal cause a quality control 'vacuum' in the housing market?

TH I think the withdrawal of CSH is a good step since so many schemes in the past have not helped. However, as mentioned previously, a building's envelope should be the focus and therefore building to the Passivhaus standard, in the same way that countries such as Germany and Austria have, should be the future. Although there may be higher upfront costs, the lifetime costs are significant.

MC We've always believed that the continuation of the Code for Sustainable Homes would be down to both push and pull factors. A little like the Green Deal, until the proposition and benefits are truly understood and in demand by consumers (and affordability remains a key issue), any Government led regulation will struggle to gain traction. For this reason, perhaps the BRE's Home Quality Mark, with a greater consumer focus will have a positive impact, but it's such a large beast to move and investment will need to be significant.



CH The jury is out for me. The CSH never really caught the imagination of the house buying public, and I am not sure that the Home Quality Mark is an adequate replacement, as exactly what it is offering is still not clear. We face the real possibility that nothing fills the void.

Q The Government's new housing standards, which are set to come into force in October, include the first nationally described standard for living space. Do you think this marks a turning point on addressing the UK's problem of ever-shrinking average home sizes?

MC The desire for more space in our homes is nothing new but the launch of the new housing standards is certainly a move towards addressing that. However, with the standards being voluntary and subject to various 'means testing' to ensure their implementation is really necessary, we question what impact they will really have, especially given the

ever increasing pressure on our national housebuilding programme.

Where we see the bigger current opportunity is in the design of our homes and the smarter use of the space that already exists for the requirements of modern households. Space efficiency, for example flexible living solutions and clever storage provision, can make a huge difference to a property and the perception of space. Research we've undertaken has demonstrated that 76% of homebuyers believe that the storage in new build homes could better meet the needs of modern households, 70% agree that new build homes need storage solutions in all rooms and 73% find it off-putting when new build homes have rooms that lack storage facilities. This is a key area that housebuilders could look to address.

CH One would hope so, but this will depend on effective enforcement of the rules, and that is not something we have a great record on.

BARRIER TO QUALITY



Simon Hancock, technical manager at Protan UK, argues against an 'initial cost saving' approach to value engineering, as lower spec products can end up costing clients more in the long run.

Cost versus value? The cost of a project goes way beyond what is on the bottom line of the tender submission. It extends to the efficiency, and quality, of the execution.

Value engineering is a phrase on everyone's lips at the moment, but too often misused. For too many, it means cutting costs to the bone, basing decisions purely on the 'bottom line'. True value engineering is about taking the wider view: looking at materials and processes to see if a more cost-effective solution exists to achieve the same objectives. It is not about achieving less ambitious objectives and it is certainly not about saving money on materials that, in the end, incur additional costs in installation or remedials, that outweigh the original perceived 'cost savings'.

It may be cheaper on paper to use a lower specification, but why was the higher grade specified in the first place? Increasingly, disputes are arising between client and contractor on D&B projects because the original spec is downgraded, and 'value engineering' is held up as the reason for the change. However, in actuality, it was most likely changed for material cost. The specification is usually written for a reason beyond cost – it is written to meet certain performance criteria.

The 'cheapest' on paper may actually be the most expensive in reality, when defects through poor quality product or poor quality workmanship are addressed.

It may also take a lot longer, and require more ancillaries, to install.

PROFESSIONAL GUIDANCE

An accepted result accelerator in value engineering is to use expert advice. Specifiers cannot be expected to know every nuance of every product, it is up to the manufacturer to help. More often than not it isn't necessary to pay for that advice. Most manufacturers have technical departments, and will advise on the most appropriate material and solution for each project. It is in all of our interests to deliver genuine value – 'ripping someone off', or downgrading, loses future custom, and creates a bad reputation in the marketplace.

A good technical department will work in partnership with the contractor to come up with the best solution. It will cost/plan up according to the brief, but should propose alternatives that would add value, not cost, to the project. Bear in mind there may be a larger capital cost, but that would be offset by savings achieved by reduction or elimination of remedials, resulting in better performance and reduced RMI costs. It's about maximising value.

EARLY CONSULTATION

It is most logical to utilise that expertise at the outset, when project planning, at the design stage, especially as there

may be an alternative solution that may require a slightly different build process that will yield a more cost-effective and better finished project.

For example, on a big roof without any severe wind loadings, convention would dictate standard overlap membrane. However, what about going the prefabricated route? The same membrane specification, prefabricated, could cut on-site welding by up to 70%, and material by 10%. That reduction delivers corresponding savings on labour. As the welding is undertaken in a factory – a controlled environment – any vagaries of bond quality from dirt on site, the weather, or workmanship, are eliminated, giving a better quality, consistent bond along seams. Wastage is minimised, with all its associated cost issues of removal and disposal, yet a prefabricated membrane costs no more per m² than conventional standard overlap.

If the roof/building is in a particularly exposed location, such as on a large roof, traditionally one would opt for an adhered system, however is that the best option? A vacuum roof may be more efficient in the long term. It would ensure that the membrane would stay put even in the extreme winds to which we have been subjected over the past couple of winters.

Wind uplift pressure at the corners is 2.5 times that in the field, or centre, of the roof. SPRA's Design Guide advises to allow a safety factor of 2 (ie 200%) over the wind loading set under BS 8217:2005 of 2.4 kN/m² (125 mph). During the storms of 2013, the highest wind speed recorded by the Met Office was 142 mph (123 kt), so well outside the limit for the roof field area, let alone the corners.

As I said earlier, specifiers cannot be expected to know such fine detail, but manufacturers should, and therefore advise accordingly. However, they can only do so if their expertise is used at the outset of the project, and a robust NBS J42 specification prepared. Only then can true value engineering be attained and delivered.



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FAST ROLLOUT

A new self-adhered membrane, alongside a close working relationship between manufacturer and contractor, has helped ensure the timely delivery of new leisure centre roof. Building Products reports.

Redcar Leisure Centre was recently closed and replaced by the new £31m Redcar Leisure and Community Heart project, as part of the local council's aim to get more people involved in sport and leisure in the area. Investment has provided improved facilities for the local people, including new changing rooms, gyms, and studios, with indoor and outdoor activities on offer.

The project recently won the Regeneration award at the RICS North East Awards and the recently launched Sika Sarnafil Self Adhered Membrane (G476-SA) for use in inverted roof applications was used extensively on the project.

The original hot melt specification for waterproofing the roof was changed to a single-ply option, to avoid the hot works. This resulted in the project benefitting from the first ever large-scale use of this new self-adhered roof membrane. The manufacturer says that the product combines all the traditional and proven advantages of a Sarnafil membrane, with fast and easy installation thanks to a closed cell self-adhesive backing. The closed cell backing means that if the membrane does get inadvertently damaged, the water ingress will be contained.

PRIMED FOR QUICK INSTALL

The roof was first primed using Primer600 before the G476-SA was laid. The self-adhered membrane is designed to provide a rapid installation, with both the contractor, M and C Roofing, and Sika Sarnafil's Applications team, highlighting how quickly and easily it went down over the 800 m² area. This is thanks to how the membrane is applied – it is simply rolled out and aligned, then

the release liner is peeled off and the membrane is adhered to the substrate, therefore making installation easier.

To ensure intimate contact with the substrate it is recommended that a water-filled roller is used. The laps are then simply welded, providing a water tight finish. In addition, the peel and stick application method of Sarnafil Self Adhered provides instant wind uplift resistance, to prevent delay in the final finish, be it insulation and slabs, stone ballast or a green roof.

Sarnafil G476-SA is a composite synthetic roof waterproofing sheet consisting of a reinforced thermoplastic waterproofing membrane and a closed cell foam backed coating with a pressure-sensitive adhesive. Specially designed for inverted roof situations, its integral glass non-woven carrier helps provide dimensional stability.

The product is said to be suitable for new build structures where timescales are tight, such as the Redcar Leisure Centre and Community Heart project. Also appropriate for refurbishment projects on smooth substrates, Sarnafil Self Adhered is prepared with an uncoated welding edge to ensure that a strong welding seam is achieved in the laps.

SPECIALIST ASSISTANCE

On the Redcar Leisure Centre project, all the laps were thoroughly inspected by the Sarnafil Applications team, before the extruded insulation boards were placed on top. In this instance, the roof was then finished with ballast.

The Applications team were also on hand to make sure the new product was installed to the highest standard and to answer any questions the operatives had.

In addition, they also ensured the guarantee on the product.

COLLABORATIVE WORKING

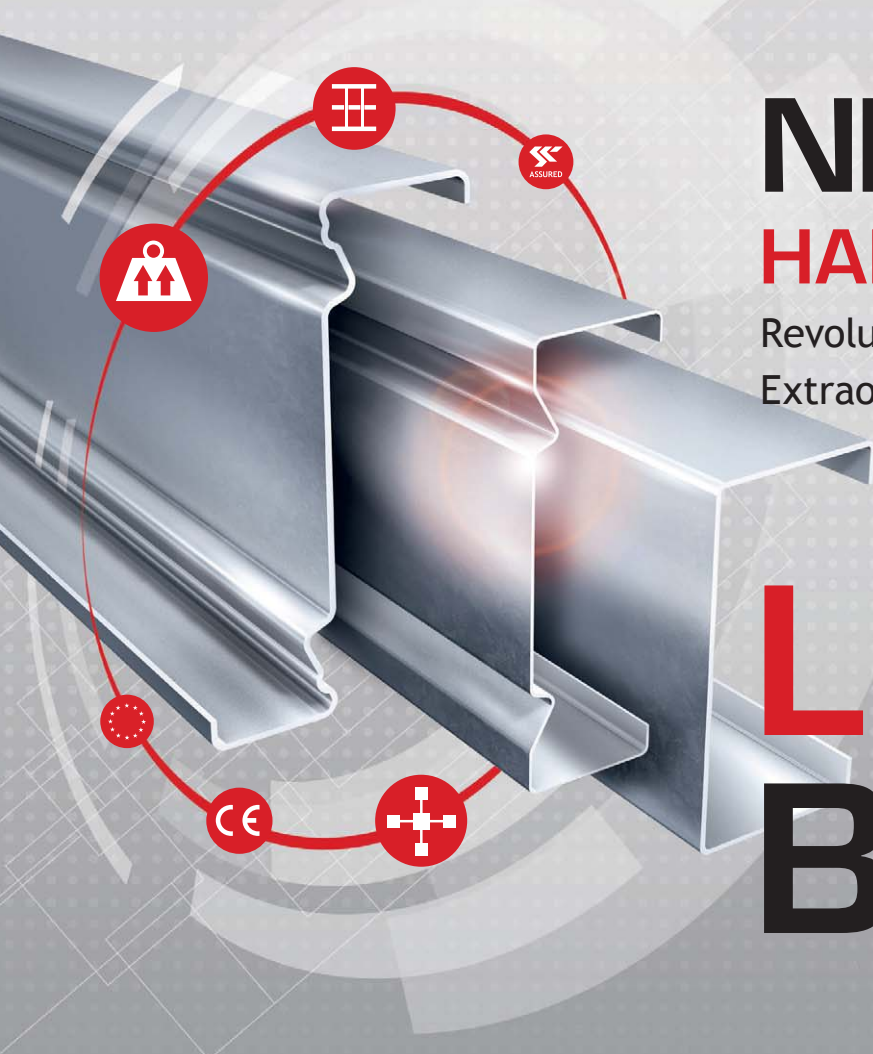
The project was a success largely due the close working relationship between Sika Sarnafil and contractor. The firm has an on-going commitment to educate and train contractors across the UK, and as part of this, it recently hosted three launch events, showcasing its latest product launches and future developments.

Hosted at Sika's Centre for Excellence for Liquid Applied Membranes in Preston and the Centre for Excellence for Single-ply Membranes in Welwyn Garden City, Dunblane, contractors from across the UK took part in interactive workshops hosted by the Sika Sarnafil applications team.

Live demonstrations of the Sarnafil Self Adhered Membrane and a soon-to-be-released Spray Applied Adhesive were followed by a preview of the new Sarnamatic 681 welding machine. Product manager, Dean Grady, then gave attendees an up-close look at the Solarroof system – a new solar panel mount package that offers a full 20-year system guarantee.

Scott Henshaw of Derwent Roofing Services said: "It was great to see a live application of the new Sarnafil products, it's very useful to get a proper demonstration. I was particularly impressed at the speed of the Self Adhered Membrane being laid down. There was a friendly and informal atmosphere and the applications team were really helpful with any queries we had."

The events are part of a wider programme of training courses and support offered across the Sika roofing brands, with over 5,000 fitters and contractors having received a Sika Sarnafil accreditation alone.








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SIX GLAZING SINS

Richard Burgess, sales & marketing director at Lonsdale Metal, provides advice for designers and specifiers on how to avoid making six common mistakes that are known to cause roof glazing failure.

Naturally lit interiors, reduced energy costs and healthier occupants – the benefits of a well-designed and correctly installed roof glazing system are clear for all to see. However, as with every architectural feature, they present a series of technical challenges to designers and specifiers.

INCORRECT INFILL OR GLASS

Specifying the glass type is one of the most important parts of the process. With a huge range of infills available – including clear, translucent and opaque panels in glass, polycarbonate or GRP – the designer must consider the height of the building, the size of the rooflight and the use of the space below.

British Standard BS 5516 Part 2, which covers patent glazing and sloping glazing for buildings, states that toughened or laminated glass can be used for buildings up to 5 m above floor level. Toughened glass no more than 6 mm thick and no greater than 3 m² can be used between 5 m and 13 m above floor level. At heights greater than 13 m above floor level, laminated glass should always be used.

As a glazed roof often needs to demonstrate excellent thermal and impact forces, toughened glass is a common specification. It may be successfully used in applications like domestic conservatories, but as it shatters into a multitude of tiny fragments when it breaks, it isn't particularly suitable for food manufacturing facilities, healthcare environments or public buildings such as swimming pools.

INSUFFICIENT PITCH

For a rooflight to sufficiently drain water without causing leaks, the water must flow at a reasonable speed. To ensure the water flows at a fast enough rate, a 15° pitch would be recommended in accordance with BS 5516 The British Standard Code of Practice for the design and installation of sloped & vertical patent glazing. Although other usual pitches are 22.5°, 30° and 45°,

any pitch between the minimum of 15° and vertical is acceptable.

If the pitch of a glazing system isn't above 15°, the flashings around the perimeter of the glazing where it abuts with the building should be sealed to the glass with a suitable silicone. This will help prevent water being blown back up underneath the flashings or seeping into the building due to capillary reaction. The designer and installer must also understand that lower pitch roofs can be subjected to greater snow loads and so a stronger bar should be used to cope with the increased weight.

OVER-WIDE GLAZING BARS

It would not be recommended to use patent glazing beyond maximum 750 mm centres as the glass is only supported on the two long sides and not supported across the width. For this reason we refer to patent glazing as a 'two-edge support' system. For example, a bar that will span 3,000 mm at 600 mm cross centres, may only span up to 2,500 mm at 750 mm cross centres. Therefore, it is necessary to go 'one up' and select, for example, the Lonsdale SKY71 instead of the SKY65 or the ALM100/3 instead of the ALM100/2.

Importantly, bars span less when glazed with DGUs than with single glazing due to extra weight. In some circumstances, glazing bars can be installed at wider cross centres up to approximately 900 mm, but care must be taken regarding span, glass type and pitch. If a rooflight manufacturer's systems are not suitable, there are sloped curtain walling systems available that offer four-edge support.

CONTRAVENTION OF PART L

On-going changes in Building Regulations Document L apply to domestic and commercial properties and refer to buildings as 'dwellings' and 'non-dwellings'. These regulations are relatively complex, but with modern glass types and sophisticated thermally broken aluminium

sections, Lonsdale is able to offer glass roofs with combined frame and glass U-values as low as 1.41 W/m²k.

Environmental issues need to be taken seriously and considerable time and expense must be invested to ensure products are efficient and compliant. Good advice would be to avoid companies who do not offer similar technical back-up as Building Control Officers are increasingly vigilant regarding this issue.

DOUBLE GLAZING WITHOUT STEPPED BOTTOM EDGE

When used in two-edge support sloped glazing, double glazing units should have a suitable 'step' to the bottom edge. This applies to all combinations featuring laminated glass in order to avoid thermal cracking. This type of damage is quite distinctive, as a crack tends to appear at the side of the unit and travel horizontally then abruptly vertically to cause a 'T' shape pattern.

Ideally, the bottom sheet of glass should stop over the centre line of the bottom supporting structure to prevent the glass passing to the colder, exterior of the building. If both sheets of glass are toughened, flush edge units can be used, but it is necessary to protect the exposed edge of the unit with a 'U' channel.

NOISY ROOFS

Occasionally, customers complain that a glass roof is 'creaking' and/or 'groaning'. This will generally occur on hot days due to expansion of materials and is usually harmless. However, if the problem is severe, the cause will often be oversized glass as there is not sufficient tolerance between the edges of the glass and the aluminium glazing bar. As a result, any expansion has 'nowhere to go' and the movement throughout the roof will create alarming noises for the building's occupants or homeowner. In the most severe cases, this can lead to glass breakage.

PRE-PAINTED CAST IRON 'LAID BARE'

ALUMASC RAINWATER has produced a White Paper, which it says lays bare the costs of pre-painted cast iron compared to primed rainwater systems.

The company says its pre-painted cast iron is only 13% more expensive than primed cast iron, but produces better long-term cost savings. The painted guttering goes through a four-coat system, which is factory-applied under controlled conditions. The paint has been specifically developed to give a smooth and long lasting finish to the cast iron. The company recently conducted 1,000 hours of salt-spray tests to demonstrate the performance of its rainwater systems.

- 0174 464 8400
- www.alumascrainwater.co.uk



MAXIMISING DAYLIGHT FOR WAITROSE

BRETT MARTIN's Energysaver GRP composite rooflights and Daylight Systems were recently specified to bring maximum daylight into and reduce energy demands at Waitrose's flagship Magna Park distribution centre in Milton Keynes.

The new distribution centre includes a 940,000 ft² roof, 15% of which is made up of Energysaver rooflights. The triple skin factory assembled insulating rooflights (FAIRs) are manufactured from GRP.

Designed to the same depth as the composite roofing system, Energysaver's flat liner panel sits flush with surrounding metal panels for a neater internal appearance. Delivering U-values from 1.9 W/m²K down to 0.9 W/m²K, they are designed to diffuse natural daylight, enhance thermal performance and offer "ready-to-fit" convenience for wide-span buildings.

- 0247 660 2022 • www.brettmartin.com



'IMMEDIATE' WEATHER RESISTANCE

CROMAR has launched Elastathane 25, a BBA certified, cold-applied, moisture-curing polyurethane which has been designed for use in waterproofing roofs, walls, balconies and commercial projects such as bridge decks.

The company says the low odour, high solids formulation offers excellent adhesion to almost any surface, provides immediate weather resistance, and has a high degree of elasticity when cured. Two primers are available, the first for same day application of a single coat of Elastathane and the second for application the day after priming. Once applied, Elastathane is resistant to detergents, oils, sea water and most domestic chemicals.

- 0197 766 3133 • www.cromar.uk.com



BREATHER MEMBRANE FOR 'HARD TO INSULATE' BUILDINGS

PhotonAir, a new air-open reflective insulating breather membrane from **THERMIC TECHNOLOGY** has achieved listing status from Travis Perkins a week after it was launched.

Developed for use in roofs and walls, PhotonAir is made with high density glasswool encapsulated between a perforated reflective lower layer and Klobber Permo Air. The product, installed in the same way as a standard roofing tile underlay, is water tight and designed to upgrade thermal insulation without the risk of condensation.

The product can be specified for buildings that are hard to insulate, such as Victorian and Edwardian homes, historic buildings, churches and barn conversions. It can be installed without a vapour barrier or the need to counter batten, meaning there is no change in the roof height of a building.

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MAXIMISING NATURAL LIGHT

GLAZING VISION recently supplied its fixed Flushglaze rooflight to maximise natural daylight in a property near Alexandra Palace, London. The minimal framework and large area of sheer, toughened, triple-laminated glass of the Flushglaze skylight was installed above the dining area.

"The installation of Glazing Vision's product enabled daylight to penetrate the heart of the extension that would have otherwise been relatively dark. The rooflight not only enables great views of the sky during the day but is also an admirable feature at night, with an open snug room positioned to the side of the skylight around a wood burning stove," the company said.

• 0137 935 3725 • www.glazingvision.co.uk



COMBATTING CUT EDGE CORROSION

DELVEMADE's Seamsil has been specified to secure the long term performance of the roof at one of Royal Mail's UK retail outlets.

Seamsil is a silicone external repair system, used to combat cut edge corrosion on profiled plastisol/PVDF coated steel roof sheeting.

The company says that Seamsil was developed with the cooperation of BSC (now Tata Steel) as a solution to a problem, which was affecting the metal roofs of many of its premises.

Cut edge corrosion can be caused by a combination of poor installation techniques and on-site cutting, plus attack from acid rain and pollutants, which are then retained as moisture in critical roof overlaps and gutter overhangs. The firm says this results in corrosion of the profiled steel roof sheets and could lead to the need for partial or complete roof replacement if not treated.

• 0120 486 8604 • www.delvemade.co.uk



ROOFLIGHT REDEVELOPMENT

JET COX's Moduglass rooflights were recently installed at a library in the London Borough of Enfield, as part of refurbishment and redevelopment work.

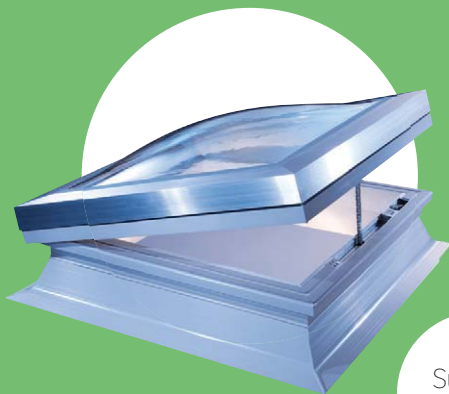
The Moduglass range is available with the choice of two, three, four or five compartment assemblies, which are located on top of the manufacturer's RO16 insulated upstands. The rooflights are fabricated from polyester powder coated aluminium extrusions to RAL9010 and are compatible most types of roofing membrane including single ply, hot melt, GRP and lead, copper and zinc.

The range also features internal electrically operated Ventilation Panels on a remote control system, and is covered by a 10-year guarantee.

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Mardome is the intelligent choice of rooflight, intelligent by design, intelligent by performance and intelligent by compliance, it sets the new standard for rooflights.

Intelligence lies behind its sleek contemporary styling, inside and out. The clever approach to developing a compact, low rise glazing profile means minimum interruption to the roofline. And with a sleek aluminium security frame option, prefinished kerb walls and hidden actuator system to enhance visual presentation, Mardome adds up to the most attractive rooflight choice.

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CLEAR CREDENTIALS

A frameless glass facade designed to reduce the risk of overheating has helped maximise the visibility of wares at a recent Jaguar Land Rover showroom refurbishment project. Building Products reports.



A car showroom is a direct extension of the brand whose products it is selling and customers of high-end automotive brands have come to expect the design of the building to reflect the quality and aesthetics of the vehicles inside. This was the challenge facing Colliers Land Rover, a well-established retailer near Birmingham, when redesigning its showroom.

The architectural design, which is strongly guided by brand guidelines set centrally by Jaguar Land Rover, makes a feature of its glazing, with a 24 m wide, 3.7 m tall sweeping facade of frameless glass that maximises the visibility of the showroom floor from outside the building. At the same time, it also enhances the experience of potential customers viewing the cars by bathing them in natural light.

To help form a near-invisible barrier between the showroom floor and the outside, it was important for the glass to be unencumbered by imposing frames or supports and for it to be as clear and colourless as possible.

RIISING TO THE CHALLENGE

These twin challenges were met with a combination of the Pilkington Planar structural glazing system and Pilkington

Optiwhite extra-clear, low-iron glass.

Rather than being held in frames, the glass units sit within channels in the floor and ceiling, with additional support provided by a series of 15 mm thick glass fins, set at right angles to the plane of the glazing. Pilkington Planar 905J stainless steel fixings were then used to secure the facade to the glass fins.

It was vital that the aesthetics didn't come at the expense of practical considerations like safety and energy efficiency. Thick 12 mm glass was used for the outer pane of the double-glazed system, lending structural strength to the system. To provide insulation, a second 6 mm pane of Pilkington Optiwhite glass was used with a 16 mm air-filled cavity between the two sheets.

Before being installed by Nottingham-based fenestration specialist Peak Aluminium, an advanced solar control coating was applied to the 12 mm glass at a glass coater in St Helens. The coating, positioned on the inside of the outer pane, reduces the amount of energy from sunlight allowed into the building thereby reducing the risk of overheating in summer, while maintaining the clarity and low reflectiveness of the glass.

The end product, Pilkington Suncool 66/33, was then toughened to provide

extra stability and safety to the glass.

CUSTOMER SATISFACTION

Louise Mitchell at Land Rover Erdington said: "The appearance of the showroom is a key ingredient in the experience of shopping for and buying a Land Rover, so it was important for our new space to be at the cutting edge of design.

"The sense of space that the Pilkington Planar glazing brings to the showroom, as well as the clean lines it creates visually, really allow the cars to take centre stage right from the first moment a customer sees the building."

Michael Davidson, sales engineer at Pilkington UK, said: "This project is a great example of made in Britain at its best. Obviously Land Rover is a flagship for the British manufacturing industry, so it's great that we have been able to provide a glazing system entirely made in the UK to go along with that heritage.

"This was also a first for us as we've never used 12 mm Pilkington Suncool in a Pilkington Planar installation before. The level of performance it delivers in terms of safety, thermal insulation and solar control places it at the cutting edge of structural glass and we hope this project paves the way for many more installations in future."

Notes from the Comar design team...

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From one range of profiles Comar 6EFT offers capped, 2sided structural glazing with vertical or horizontal capping and 4sided structural glazing. Comar 6EFT 4sided SG offers the slimmest structural glazing joint available today and can be either silicon or EPDM gasket sealed.

For details and downloads, take a look at www.comar-alu.co.uk today. We are pleased to offer BIM families to our architectural and contractor colleagues, please email projects@parksidegroup.co.uk for further information.

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DRIVING AMBITION

Glazed aluminium doors have helped provide a clean aesthetic finish for the world's first Nike Golf Fitting Centre at Archerfield Links in Scotland. Building Products reports.

In July 2014, Nike Golf opened the doors to its first ever Performance Fitting Centre at Archerfield Links, on Scotland's golf coast in East Lothian.

Built with 'the athlete in every golfer' in mind, the facility, which is a world first for Nike Golf, allows any player to maximise their potential by experiencing the very best in golf club fitting.

As well as receiving the same attention to detail as Nike Golf Tour athletes, customers are offered complete game analysis using the latest video, radar and ultrasound technologies. These will help map key data parameters, including golf swing, ball speed, attack angle and ball-flight paths, allowing a more efficient training programme to be created.

Players will also have the opportunity to receive coaching from Archerfield's elite team, which includes former Ryder Cup player Andrew Coltart, leading European Tour coach Gary Nicol and PGA Professional Alistair Brown.

BLENDING OLD AND NEW

Nike decided to develop the high-profile facility at Archerfield Links after over four years of searching for a suitable location. Archerfield's main concern was that the new building had to fit in within its existing estate. With the facility being overlooked by the Club House and located next to the beautifully rustic spa building, the centre would have to be both functional and aesthetically pleasing.

With the three performance fitting bays being the focal point of the facility, the doors for each of these pods were a crucial part of the design. After a recommendation from Head Office, Archerfield was introduced to Brian Gargaro at Industrial Doors Scotland (IDS), who was very positive about the proposed venture and provided Archerfield with a number of options that met all of the necessary requirements.

In keeping with the rustic appearance of the surrounding buildings, which are predominantly built from reclaimed materials, the decision was made to fit three of Hörmann's ALR F42 glazed,

sectional aluminium doors. Thanks to the precision glazing, the ALR F42 doors create a striking mix of mirroring and transparency. The surface-mounted, flush-fitting panels also help to present a smooth overall appearance, designed to subtly complement the buildings around it.

WORKING TOGETHER

For Gargaro, it was vital that he worked alongside the architects and builders to ensure that the construction was completely accurate in order to safeguard a flawless installation process. He said: "With Archerfield and its builder already having a well-established relationship, we were flattered to be approached to supply such a key part of the project. The whole process was very simple and it was an absolute pleasure to deal with them."

Stuart Bayne, director of golf at Archerfield, was particularly impressed with the service provided by IDS: "The installation of the three Hörmann doors went very smoothly and was completed in just a couple of days. The engineers from IDS worked quickly and efficiently, nothing was too much trouble. I found the training given by their team after the doors were installed extremely useful, in particular the detailed on-site demonstration of the correct operation procedures.



"The doors all work incredibly well. They fit in perfectly and have such a natural look about them, so we're very pleased with the end result. I would definitely recommend both IDS and Hörmann to anyone in the future."

The Centre opened on 7 July 2014 with four-time major champion and Nike athlete, Rory McIlroy, giving the assembled guests a masterclass of ball striking. Almost a year down the line and the facility is in full swing, with customers coming from all over Europe and as far afield as Mexico to take advantage of the world-class fittings.

Following the success of the Performance Fitting Centre at Archerfield, Nike is now looking to replicate the facility in other locations around the world.



MANUAL VENTILATION

GEZE UK recently launched the OL Line manual window control system, a natural ventilation system designed specifically for commercial and public buildings.

The system features a manual opener, which is fitted to the opening vent and linked via lengths of conduit and cable to a wall mounted operator.

The modular system has been designed to be flexible with multiple vents which can be operated from a single operator. It is available in a choice of different opening widths from the Midi operator to the Maxi operator for heavier window loads, making it suitable for use on most styles of window.

• 0154 344 3000 • www.geze.co.uk



WINDOW REFURBISHMENT

REHAU's PVC-u windows were recently specified to replace grey aluminium frames at a disused bakery building in Glasgow.

Forty two fixed and tilt and turn windows and two sets of fire exit doors using the Rehau TOTAL70 window system were installed at the building.

The TOTAL70 window system can be used to fabricate windows with a U-value of less than 1.0 W/m²K and are available in a range of foiled colours.

• 0207 580 6155 • www.rehau.co.uk



EXTENDING THERMAL PERFORMANCE

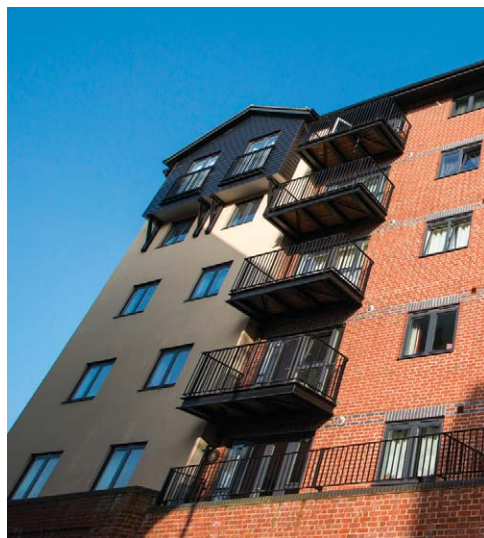
COMAR ARCHITECTURAL ALUMINIUM SYSTEMS has launched the 5P.i ECO+ range Polyamide Insulation (P.i) casement window system.

The company says the new range offers additional thermal performance to the Comar ECO product range by extending the polyamide strips and inserting thermal foam.

Due to its slim profiles, the Comar 5P.i ECO+ range weighs less than 0.79 kg per linear metre and achieves a Green Guide A+ rating, which can help specifiers achieve the highest BREEAM levels.

Comar 5P.i ECO+ system is 100% recyclable and the company operates an Environmental Management System certified to ISO 140001.

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AUTOMATIC OPERATORS IMPROVE SCHOOL ACCESS

TORMAX has retrofitted seven sets of its iMotion 1301 automatic operators to existing swing doors throughout Thomas Deacon Academy, Peterborough.

iMotion motors have been engineered without the elements which the company says generally wear out over time, such as gears and brushes.

A micro-processor control system ensures permanent monitoring of door leaf movements. Door function is automatically adjusted if operating conditions change, for instance, through general wear and tear, a change in temperature or a build up of dirt.

The company says its iMotion operators incorporate a hi-tech system of up to four monitored sensors to ensure user safety and compliance with legislative requirements. The doors are also tested for fire protection.

• 0193 223 8040 • www.tormax.co.uk



DOOR CLOSURES WITH BUILT IN PRESSURE RELIEF

YALE has launched a new range of door closures which are designed to cater for all types of use, from light duty internal doors to heavy duty external doors.

The range consists of a fixed sized three closer (Yale 3000), a template adjustable size two-four closer (Yale 5000), a variable adjustable size two-four closer and a variable adjustable size two-six closer (Yale 7000). When installed in size three application (or above power size) all closers in the range are suitable for use on fire doors, providing a solution for both residential doors and social housing.

Both the 5000 and 7000 door closers also have built in pressure relief valves, and the 7000 has a back check function which gives a cushioning effect to help prevent damage to a person, the door, and the adjoining door structure, if the door is thrown or blown open.

• 0845 223 2126 • www.yale.co.uk

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MUMFORD & WOOD Conservation timber windows and doors have been specified by Epsom Builders for a new-build property in Esher.

Double aspect Conservation flush leaded casement windows and French doorsets were specified to provide maximum natural light throughout the property.

The casement windows included both traditional side hung and top hinge, swing-out casements over fixed sashes, non bar French doorsets and an arrangement of clear pane French doorsets, flanked either side with top hinge casements.

The standard 24 mm units feature a 9 mm antiqued lead. This forms the came sections which are applied to the inside and outside of the outer glass leaf with a chamfered internal profile.

• 0162 181 8155

• www.mumfordwood.com



ENABLING PATIENT PRIVACY

INTASTOP has launched IntaGlaze, a range of vision panels, which allow both discretion and increased visibility in health-care facilities.

The panels have a frameless design and use a triple glazed system with 20 mm double width stripes which provide up to 45% visibility. Additional features include, an omni-directional option, dual or single lever operation on one or both sides, standard key, Lifeline Key or anti-ligature knob. Vision Panels are fire rated to FD30 and FD60 and tested to BS 476: Part 20 and 22.

• 0130 236 4666 • www.intastop.com



'INVISIBLE' OPERATORS AT BLENHEIM

GEZE UK has installed a pair of automatic sliding doors with Slimdrive SL operators at the main entrance to the visitor centre at Blenheim Palace.

Part of the Slimdrive range, the company says SL is almost invisible in elevation thanks to its slim design and a drive unit height of 7 cm.

It is an intelligent automatic door operator, which is designed for high traffic areas where opening and closing a door manually would not be appropriate.

Clive Wilkins, construction manager at Blenheim Palace, said: "We were impressed by GEZE's service and by the fact that they have regionally based engineers. This means that they can respond quickly should the doors ever develop an operating problem."

• 0154 344 3000 • www.geze.co.uk



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BRIO LAUNCHES DUAL POINT LOCK SYSTEM

BRIO has launched a new lock option for its exterior folding Weatherfold 4s system.

The new 286 Dual Point Lock is suitable for Brio's Weatherfold 4s system with timber or aluminium panels. It is also suitable for single hinge panels and French doors.

The 180° operation of the low profile handle activates a 25 mm throw to lock off doors, top and bottom. Both locking and non-locking options are available, all with an integrated escutcheon. The dual lock is designed to cope with timber panel thicknesses of between 38 mm and 70 mm, with a height of 3.5 m. For aluminium panels, minimum width is 35 mm.

The unit is a 4 pin 20/10 Euro cylinder in stainless tell or cast alloy and finished in satin and polished stainless steel or satin nickel.

• 0191 229 1224 • www.briouk.com





INTEGRATING THE RANGE FOR CARE RESOURCE CENTRE

A range of products from **SENIOR ARCHITECTURAL SYSTEMS** have been specified at a purpose built Primary Care Resource Centre in Buckley, Wales.

Senior's SCW+ aluminium curtain walling system was used to create the entrance to the large atrium waiting room. The new centre also features the aluminium SPW 600/e window system and thermally broken polyamide SPW 501 commercial door system, which was specified for the centre's automatic doors and emergency exits.

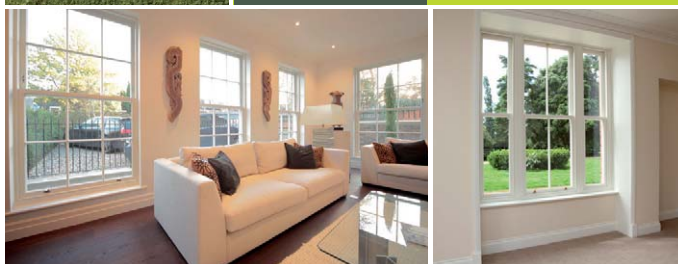
Sharon Edwards, from installer CS Aluminium Windows, said: "With the help of Senior Architectural Systems we have been able to achieve a cost effective high performance fenestration solution for this project by integrating different systems from within Senior's product range."

• 0170 977 2600 • www.seniorarchitectural.co.uk

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BUSINESS DEVELOPMENT PIPELINE

The installation of a macerator pump at the headquarters of a safety education charity has enabled the creation of bathroom and kitchen facilities for a location that would have otherwise required significant remedial drainage works to achieve. Building Products reports.

Every year thousands of children are injured in preventable accidents in the home, on the roads and at play. LV= Streetwise is an award-winning, interactive safety education charity that teaches children about risk in everyday life and the consequence of making responsible choices. The original concept was the brainchild of the Met Police and a permanent site was developed in Dorset in the late 1990s to be run by a charity in partnership with the emergency services, councils, voluntary groups and businesses.

The site, a warehouse in Bournemouth, has been transformed into a life-sized, indoor bricks and mortar 'village' of scenarios which are traditionally built scenes from everyday town and country life, including a full sized two-storey house, a high street, an electricity sub-station, a building site and railway stations. Safety tours are conducted by volunteers for children who learn about potential dangers through interactive role play.

MEETING FACILITY DEMANDS

A small, separate section of the building has recently been occupied by the Safer Neighbourhood Police, and consequently kitchen and toilet facilities needed to be upgraded. This was only possible due to the specification of a Sanibest unit from Saniflo, which features multiple outlets enabling it to take waste from the cloakroom WC and basin along with the kitchen sink.

Whilst this sounds very simple, the installation proved to be challenging due to the location of the existing gravity toilets that the unit needed to connect to. The pipes had to be installed to the inside wall of the warehouse – up 6 m, along 7.5 m and then 4.5 m down the outside of the building to connect to a manhole outside the building. However, thanks to

Sanibest's pumping capability, this didn't prove to be an issue. The pipes have also been painted to blend into the wall and therefore remain unobtrusive.

FURTHER INVESTMENT

LV= Streetwise also hires out its teaching room facilities for driver awareness, first aid and personal safety training courses



LV= Streetwise is an interactive safety education charity that aims to reduce the number of children injured in preventable accidents in the home, on the roads and at play



Additional pipework was installed throughout the warehouse to carry the waste from the new bathroom and kitchen facilities

which brings additional revenue into the charity. Recently this was refurbished, and a small kitchen was installed in the corner of the room to make the facility self-contained and a better proposition for potential customers. Thanks to the performance of Sanibest, the charity invested in a further Saniflo unit in the shape of a Sanivite which is installed under the sink unit to dispel grey water waste from the kitchen sink and dishwasher.

Alison Shelton is CEO of Safewise and has an active role in re-investing funds back into the building to upgrade the facility for the children. She said: "The

Sanivite unit in our self-contained conference centre was literally the enabler for the project to go ahead and it will allow us to generate extra income for the centre. Installing a Sanibest unit meant we could avoid the expense of digging up the car park by connecting to the drainpipes of the existing gravity toilets.

"The advice we received from Paul Coleman from Saniflo was invaluable. He came out, surveyed the site and proposed workable solutions. We couldn't have asked for better service."

LV=Streetwise and the Weymouth Community Safety Centre are part of the Safewise charity.

TOTAL WATERPROOFING

Wedi details its range of waterproofing solutions for wetrooms, which have received the backing of a number of leading developers, as two recent new projects have demonstrated.



WEDI FUNDO LIGNO SHOWER ELEMENT BENEFITS:

- 20 mm thick floor element suitable for flush mounting in timber floors
- 100% waterproof system - wedi offers a guarantee on this
- Pre-fabricated slope – offers optimum tiling and surface drainage
- Wheelchair accessibility is built-in
- Available in a range of sizes and drain options to suit most applications
- Light weight – minimal floor load bearing requirements

With the growth in residential projects, wedi, the world recognised brand name synonymous with tiling preparation systems for wet areas, has become the system of choice for many leading developers in the demand to meet assured standards in waterproof wetrooms. The wedi system combination of wedi building boards used in conjunction with wedi Fundo floor-level showers is endorsed with European Technical Approval (ETA) and carries the CE mark and is backed by the manufacturers guarantee and 10-year system warranty.

LINDEN HOMES

The wedi waterproof system has been chosen by 'What House Awards Sustainable Developer of the Year' Linden Homes to provide a total wet room solution service for one of their latest developments at Century Gate, Beckenham, Kent. The development consists of a range of beautiful 3, 4 and 5 bedroom

detached family homes for which wedi worked alongside Linden Homes from initial wet room design, to complete installation guidance and support ensuring the ideal wet room solution to meet the developer's needs.

The 20 mm thick, floor level Fundo Ligno shower tray, accompanied with wedi building boards on the walls, created a totally secure CE backed waterproof system, which has now been used on other Linden Homes developments.

The wedi solution provided much more than just a CE marked wet room system but also ensured that the contractors were supported and trained with wedi's own NCFE backed Approved Partner training program. wedi continued to support Linden Homes with a dedicated wedi Application Engineer attending site on the first few installations until both the contractor and developer were comfortable with all procedures providing total peace of mind in both the product system and installation.

FUNDO LIGNO

When it comes to timber floors, wedi has developed the perfect solution in the wedi Fundo Ligno shower element. The floor level shower element at just 20 mm thick is a true problem-solver in the renovation of existing buildings where every millimetre counts. In contrast to traditional shower elements, Fundo Ligno can be integrated flush into the existing timber floor – without building up any additional height or the need for time consuming levelling measures. The Ligno element is sealed to the adjoining floor using wedi Fundo sealing set. When installing on top of floorboards, should the height on site need adjusting, the appropriate wedi building boards can be used alongside Ligno and then sealed with wedi 610 sealant.



LONDON SQUARE

The wedi total system solution for waterproof wet rooms has been specified and installed for an impressive new development of apartments at London Square Bermondsey Village for award winning developer London Square.

Working closely with the developer wedi were able to help overcome installation challenges on-site, to co-ordinate the shower flow rates and offer drainage solutions to engineer a floor level wet room system perfectly suited for the project.

The wedi 65 mm thick, fully integrated trap, Fundo Plano system provided the ideal solution for the floor build up from the concrete slab. The tray thickness fitted alongside wedi building boards ensured that the requirement of a floor level shower was still achieved.

On-site training from a dedicated wedi Applications Engineer ensured that the different trades fully understood how the wet room system was installed. The end result was a comprehensive CE backed waterproof system designed specifically to the site requirements and providing total peace of mind assurance in performance for the developer and contractor.

FUNDO PLANO

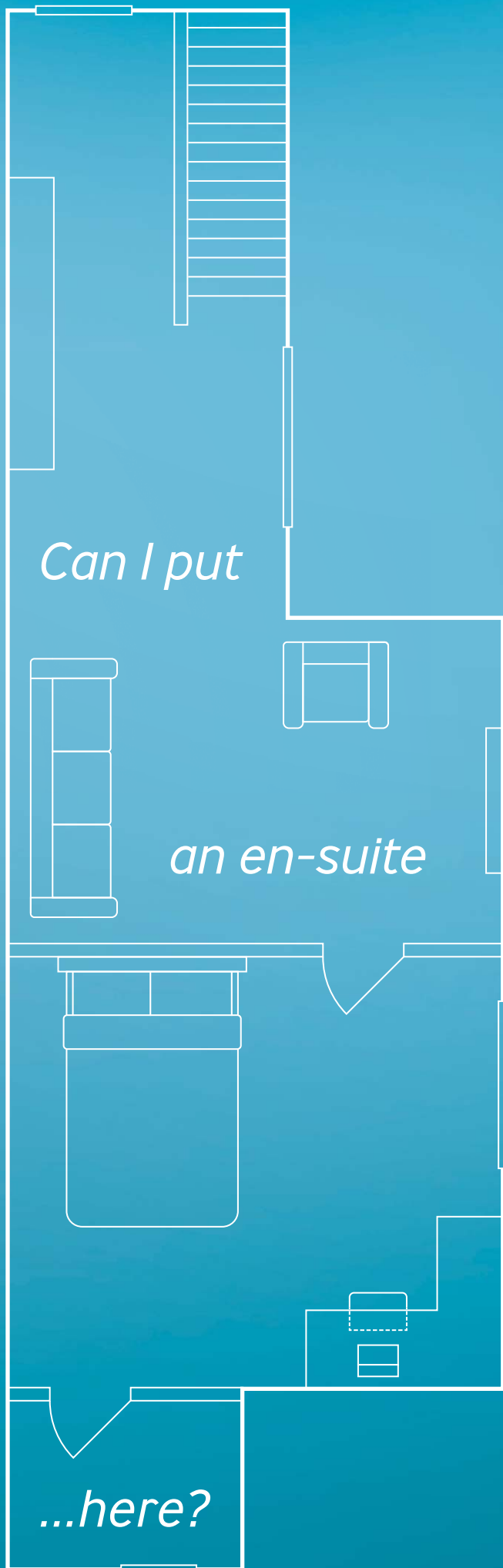
Providing a total installation height (including drain) of only 65 mm, wedi Fundo Plano is a true problem-solver. In many projects design and installation options are restricted to running all drainage and water services "surface mounted" above the existing finished floor level. Such cases can present problems in the consequential excessive increase in height to internal floor levels.

wedi Fundo Plano can be installed quickly and with ease, accurately cut to size as required on site, fitted into place and the transitions to the screed flooring sealed using the wedi system.

Should the height need to be adjusted on site, wedi building boards can be used as a substructure. This means that no levelling out with screed is necessary.

wedi Fundo Plano comes with an inbuilt uniform fall of $\geq 2.4\%$. This makes laying tiles much easier and optimises surface drainage. In addition, the wedi floor-level elements are completely wheelchair-accessible.





EXPANDING BATHROOM SUITE DESIGN OPTIONS

LECICO has developed two more bathroom suite collections, Senner and Roxton, to expand the design options in its Style Collection.

The Senner range comprises a choice of 43 cm, 54 cm and 60 cm basins with a choice of one or two tap holes and full pedestal. The close coupled WC pan is offered in a round or square design as well as a square wall mounted option. The ceramic cistern offers a dual 6/4 l or 4/2.6 l water saving flush.

The Roxton range features period detailing on its basin splash-back and stepped design around the basin rim. The collection includes a 53 cm two tap hole basin with full pedestal, and a low level or close coupled pan option. The company says the Roxton range can be mixed and matched with Lecico's new Hamilton collection, adding a high level cistern option too.

• 0123 424 4030 • www.lecico.co.uk



ENERGY EFFICIENT EXTRACTOR HOODS

FRANKE has introduced a new Greenline energy-efficiency standard for its brushless motor extractor hoods.

The company says the brushless motors of its Greenline hoods provide an 85% energy saving compared to a standard motor. The Greenline extractor hoods include the new Maris Plus 60, 80 and 90 hoods which are all rated 'A+', the new Maris T-Shape Anti-Condensation wall and island hoods, the existing Sinos all of which are rated 'A', and the Swing hood. All of the models feature multiple operating speeds with an intensive setting, cut off timers, digital displays and filter saturation indicators.

Jeanette Ward, communications manager, Franke, said: "By introducing our Greenline standard, we are giving retailers and consumers an immediate benchmark to judge and decide on the brands they have confidence in for energy efficiency, as well as for quality."

• 0161 436 6280 • www.franke.co.uk

CARRON PHOENIX LAUNCHES STAINLESS STEEL TAP

CARRON PHOENIX has launched Aruni, the first tap in its range to be made from solid stainless steel.

The company says Aruni is guaranteed to last for five years. It features a cross-head lever design with swan neck. The tap is 401 mm high with a spout reach of 183 mm. It is one of three new taps being introduced into the Carron Phoenix portfolio. It joins the Damo, which is also manufactured in solid stainless steel, and the Lucian, which is available in chrome or brushed nickel.

Neil Clark, marketing director at Carron Phoenix, said: "Our new Aruni and Damo solid stainless steel taps combines premium quality and affordable pricing, reflecting the values our brand is known for. The Aruni has all the benefits of solid stainless steel construction at a very attractive price point."

• 0161 436 6280 • www.carron.com



'READY-ASSEMBLED' WASHROOM FRAMES

Executive washrooms from **MAXWOOD** have been installed at a commercial redevelopment on Chancery Lane, London.

The doors of the toilet cubicles are faced with a 'Lati Silk' dark grey real wood veneer and feature Maxwood's stainless steel hardware range of concealed fixings and fall-to-close hinges.

The vanity tops were produced from Caithness Flagstone and 'Ice-stix' glass tiling was installed to the rear vanity walls and as a panel facing for the ducting units. The panels for the urinals were faced in back-painted glass with urinal divider screens from back-to-back glass with a white interlayer.

All of the systems were tiled in Maxwood's factory and delivered to site in ready-assembled modular frames to be installed within stud-wall cavities or surface mounted with a box frame unit.

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FIRE RETARDANCY RATING FOR BATHROOM PANELS

SHOWERWALL's bathroom panelling range has recently achieved the European standard BS EN 13501-1:2007 for Fire Retardancy with a rating of Ds1, d0.

Showerwall has been designed as an alternative to tiling and is available in a choice of MDF or plywood core. The product is designed to be 100% waterproof and is available in 33 designs, covering stones, marbles, granites and graphic prints in a choice of surface textures. Panels are 10.5 mm thick and available in either square cut or tongue & groove panels 2,440 mm high. The tongue & groove option comes in one width of 585 mm, while the standard square cut panels are available in sizes of 900, 1000 and 1,200 mm.

• 0845 729 8298 • www.showerwall.co.uk



UPGRADED CUBICLE SYSTEM FOR RUGBY CLUB


KEMMLIT's Apex Cubicle System in blue and grey was recently specified by architect Orange Key for the £750,000 redevelopment of Redingensians Rugby Union Club in Berkshire.

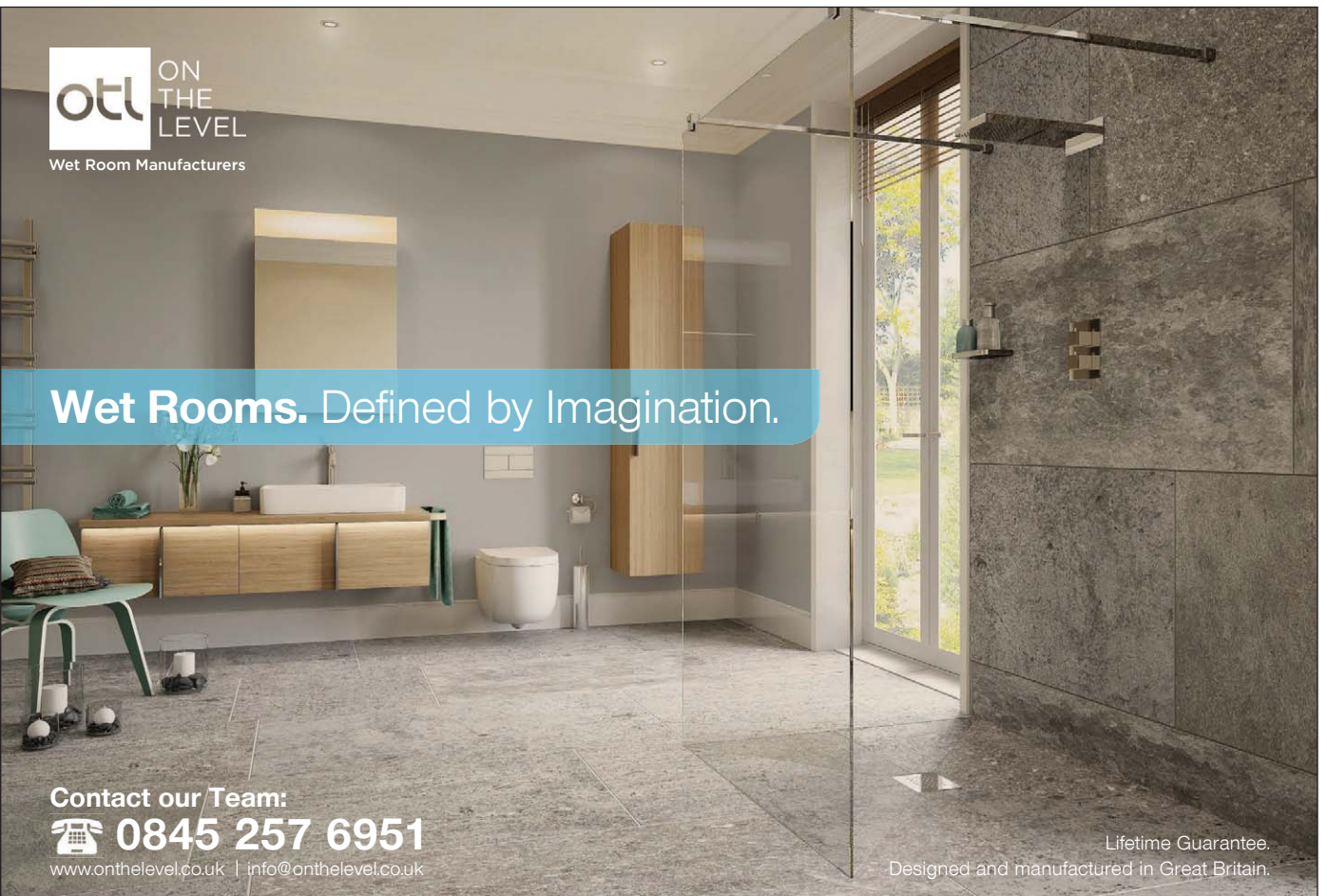
Apex cubicles feature 13 mm solid grade laminate panels, rebated doors and stainless steel fittings.

"Its robust construction and easy to clean and maintain surfaces makes the Apex cubicle the ideal choice for washroom applications and supported with a 25 year Kemmlit warranty, whole life costings are far more attractive than comparable systems," the company said.


The Apex cubicles are available in a range of colours and finishes. The company installed the cubicles at the rugby club itself and also offers design and project management services.

• 0149 163 8606 • www.kemmlituk.com





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→ www.geberit.co.uk/cleanlinechannel

EXPANDING THE INSTALLATION OPTIONS

HANSGROHE's Rainmaker select range of overhead showers now includes a new surface made from white glass. The showerheads were shown for the first time at ISH in Frankfurt in March 2015.

The Rainmaker Select 460 overhead shower has three spray modes and a 46 cm spray disc. The Rainmaker Select 580 3jet does not have a shower arm and is installed flush with the wall.

All products in the range can be combined with concealed thermostats. Additionally, there is a new invisible water connection installation option for the single spray overhead shower and the ShowerTablet Select 700, with the pipe between the shower control unit and the overhead shower hidden behind the wall.

• 0137 246 5655 • www.hansgrohe.co.uk



TWYFORD EXPANDS FURNITURE RANGE

TWYFORD has extended its e100 range with the addition of new furniture options.

The new products include large and small modular side cabinets, three mirror cabinets and five vanity units which can be wall-mounted, or on chrome legs or plinths.

The water and humidity resistant furniture comes in a high gloss white or a new grey ash wood finish.

The vanity units fit e100 square design 360 mm, 450 mm, 500 mm, 550 mm and 600 mm washbasins. The 500 mm and 550 mm vanity units feature a service space to conceal pipework. The cabinets include a retrofitting option of the vanity units onto existing e100 basins. The two modular side cabinets come in small (650 mm) or large (860 mm).

• 0127 087 9777 • www.twyfordbathrooms.com



WORK SURFACES INSPIRED BY NEW YORK'S LOFT CULTURE

Ice Concrete, part of the New York Collection of quartz worksurfaces from **COMPAC**, is one of four new quartz colours recently launched by the company.

Inspired by America's New York loft culture, the company says the range creates a fusion between architecture, design and functionality.

The New York Collection now offers seven urban colours with exclusive finishes, all of which combine depth of colour and definition of grain and are designed to be hardwearing, hygienic as well as easy to clean and maintain.

• +34 902 300 155 • www.compac.es

COMPLEMENTING OFFICE SPACE

WASHROOM WASHROOM has recently installed new washrooms at an office complex in central London.

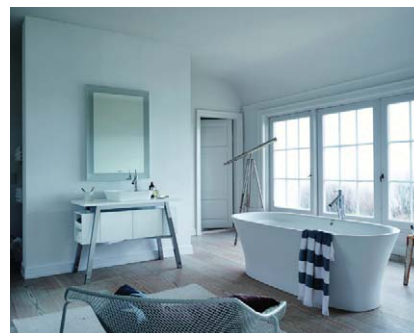
As the washrooms are situated in the middle of each floorplate, allowing for flexibility to divide the space between two occupants, the exterior walls of the washrooms are visible from all angles and therefore needed to complement the office space. A bespoke mix of real wood veneer and back-painted glass wall linings in purple were installed by the Washroom team to clad the exterior washroom walls.

The washroom manufacturer also designed and installed the office reception counter, which was manufactured in Corian in a bright white colour.

Trevor Bowers, director at Washroom Washroom said: "We're delighted with the finish as the combination of the back-painted glass and real wood veneer creates a unique space."

• 0845 470 3000

• www.washroom.co.uk



'HIGH STRENGTH' CERAMICS

Gently curved shapes form the basis of **DURAVIT's** new Cape Cod bathroom collection.

The basins in the collection are produced from DuraCeram, a high strength ceramic mass. The company says this material makes it possible to create countertop basins with a rim thickness of 5 mm. The basins are also designed to be robust and impact resistant.

The wash bowls are available in three different shapes, including round, square and tri-oval.

The Cape Cod range also features bathtubs manufactured from Duravit's new material, DuraSolid A. The bathtub is available as a free-standing model, back-to-wall or a corner version for left or right.

The Cape Cod range can be combined with selected toilets and bidets from the Starck 1, Starck 2 and ME by Starck ranges.

The range also includes floor standing frames, in chrome or wood, and mirrors with LED illumination.

• 0845 500 7787

• www.duravit.co.uk



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BINDING AGENT



Simon Hay, CEO at the Brick Development Association, looks at the technical aspects of masonry mortar use, and explains how it plays a significant role in the building process and aesthetic qualities of a finished structure.

Of the 26 million homes in the UK, 85% are built using a brick facade, making brick the British homeowners' first choice of facing material. Brick's aesthetic qualities, low maintenance and longevity explain the preference, but all of these characteristics can be compromised unless the right mortar is used, and used with skill.

The choice of mortar can be a complex decision to make, especially as the mortar is much more than just the glue that holds the bricks together. The type and style of a mortar joint can totally change the appearance of a building, as well as preventing damage by external elements like water and erosion.

THE RIGHT MIX

Larger sites will use silo mortar. This is stored dry and mixed with the correct amount of water. These mortars are described as 'designed mortars' and classified by their compressive strength. For smaller sites, 'prescribed mortars' or 'stated mixes' are mixed on site. Most brickwork is M4 in strength, or one part cement, one part lime and five or six parts cement. Below DPC, and for chimneys and free standing walls, the minimum strength will be M6, or a 1:1/2:4 mix or stronger. The mortar, however, always has to be weaker than the bricks. Repointing will be required every 70 to 100 years.

Selection of the correct masonry mortar is only part of the overall mix equation however, with workmanship and site practice a key aspect to faultless application. A dry mixture, ideal for engineering bricks on a cold winter's day, will operate differently to a wet mix typically used in hotter summer conditions or when using a brick with high absorption qualities. The water in the mix is determined by the bricklayer.

SUITABLE SHADING

Brick colour is at the forefront of the decision making process when it comes to selection types, as it should be with

masonry mortar. The application of colour can create contrast or clarity by making the wall more consistent.

The use of a pigment can also be a panacea in complex bonding when jointing may be below optimum standard. For this reason it is important that the designer or architect has specified the right pigment and mix at the beginning of the job. If changes are to be made, it is a far easier task in the early design stages.

JOINT SELECTION

There are a number of successful joint types available, and the brick selection plays a role in the choice of joint types. Joint types vary in difficulty from the more traditional (and rarely used today) tuck pointing, to the simplest joint – the bucket joint. Selection of the brick, joint and the mortar mix must all be homogeneous in order to achieve optimum performance and aesthetic value.

The common bucket handled joint, or recessed joint, allows for good weather resistance as the more the mortar is worked, the more the cement is brought to the surface. It is the most commonly chosen joint thanks to its economical qualities, weather resistance and strong bond. When applied, it will only need to be worked once, and it does not rely on secondary pointing like other joint types.

The bucket joint also allows for optimum compression, limiting the possibility of future problems with water penetration. Compression of a joint is the key to stop any water penetration through the outer leaf of the structure. A common misconception is that if water seeps into a building that it will come through the bricks or the mortar. However, it is the point at which the two meet, the junction, where the problem occurs. The correct amount of compression at the time of the application eliminates this threat.

With a brick that is rustic in nature, it may have rounded edged (arises) and chips. While these add to the interest in

the brick, a different approach may be needed. If a bucket handed joint is used a wide mortar finish may occur. In this case, consideration should be given to a slightly recessed joint 2 mm or so back from the face, to allow the brick to be dominant. A great example of this is the restoration of the British Library in London.

Further joint options include struck flush, weather struck, and square recessed up to 5 mm. Each has their own uses dependent on desired look or degree of exposure.

MAKING THE REPOINT

Although fairly robust in nature, over time mortar will succumb to weather elements and repointing is a good way of repairing any damage that has occurred. Repointing material costs will be reasonably priced, but the task is labour intensive. The most important thing to note is that repointing with a match to the prior mortar is most desirable. It was common practice pre-1890 to use a lime based mortar, and repointing using a cementitious based mixture should be avoided at all cost.

Mortar may be the unsung hero of the masonry world, but cutting corners or not giving enough consideration to the choice and application of mortar can completely destroy the satisfying regularity of the whole facade, as well as compromise its performance.

Recessed joints were chosen for The British Library in London to enable the brickwork to become more visually dominant



BP



INCREASING PRODUCTIVITY IN COLD WEATHER

Celfix mortar, manufactured by **H+H** as part of its Thin-Joint System, can now be used from 0°C, which the company says is a degree lower than traditional mortar systems.

The extended temperature range is designed to enable an increase in productivity during the colder months of the year.

Celfix mortar is cement based and supplied as a dry, pre-mixed powder in 25 kg bags. It has been designed to replace the traditional sand/cement mortar and is used when building with the Thin-Joint System. Mixed on site using specific quantities of water and applied using proprietary equipment, Celfix mortar will create a consistent joint thickness of 2 mm. The mortar starts to set within 10 minutes of application and approaches full design strength in one to two hours. The company says this enables blockwork to be built extremely quickly, and allows the inner leaf to be built independently of the outer leaf in cavity walls.

• 0173 288 0520 • www.hhcelcon.co.uk

CHAMFERED BLOCKS FOR PRESTIGIOUS REFURB

XELLA UK's Silka chamfered silicate blocks have been specified for the refurbishment of 207 Old Street, London.

Silka blocks are fairfaced on both sides and have a chamfer. Use of a thin joint mortar system is designed to enhance the chamfer's aesthetic appeal. They have a high dimensional stability and can be used for load bearing, non-load bearing and inner leaf cavity walls. A high thermal mass allows the blocks to absorb heat and release it slowly to maintain a comfortable environment.



• 0843 290 9080
• www.xella.co.uk

LIGHTER WEIGHT AND BETTER THERMAL PERFORMANCE

H+H has lowered the density of its High Strength and Super Strength Grade Celcon Blocks from 750 kg/m³ to 700 kg/m³. This has led to an improvement in thermal comfort and lighter weight blocks.

The thermal conductivity of the blocks is now 0.18 W/m²K, down from 0.19, enabling U-values to be reduced and diminishing heat loss at junctions.

The High and Super Strength Grade Celcon Blocks are available in thicknesses



of 100 mm, 140 mm and 150 mm. The High Strength Grade Celcon Blocks are also available in a thickness of 215 mm, weighing less than the HSE maximum block weight requirements of 20 kg.

• 0173 288 0520
• www.hhcelcon.co.uk

BUILDING PRODUCTS

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'INCLUSIVE' BUILDING METHOD SAVES TIME

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• 0173 288 0520 • www.hhcelcon.co.uk



EXPANDING THE ACCESSORIES RANGE

NATURAL PAVING PRODUCTS has expanded its accessories collection with a new range of step kits and pool copings.

All of the step kits and pool copings come with a practical and textured finish and are available in a variety of sizes and thicknesses. The products are available in eight colours, including Cornsilk Sandstone, Pumice Sandstone, Golden Fossil Sandstone, Harvest Sandstone, Carbon Black Limestone, Steel Blue Limestone, Cedar Sandstone and Lakeland Sandstone. They are designed to complement the company's flagstone ranges.

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www.grasscrete.com



ENERGY SAVING SMOKE AND HEAT ALARMS LAUNCHED

KIDDE has updated its range of its Firex smoke and heat alarms to include standard, long life and rechargeable battery back-up versions of each sensing technology.

The company says the new range features a 70% energy saving over previous models due to a maximum mains energy consumption of less than 15 mA.

Other new features include an Alarm Memory Function, where a flashing LED continues after an alarm has been triggered to quickly identify the source unit. The three new optical alarms also now feature dust compensation and a bug screen to help minimise nuisance alarms.

All of the new models retain current Firex features including a combined Test/Hush button, Auto-reset facility and a tamper-resistant locking device. Up to 23 Firex alarms can be interlinked to creating a network throughout the home. Firex can also form part of Kidde's 'Smart Interconnect' feature, which interlinks the company's hard-wired smoke, heat and carbon monoxide alarms.

• 0175 376 6392 • www.kiddesafetyeurope.co.uk



MULTIPOINT DOOR LOCKING

FUHR's Multi-Safe 833 lock was recently specified for a homeowner to provide automatic locking and prevent unauthorised access.

The multipoint locking device is suitable for PVC-u, aluminium and timber doors. Two solid 20 mm throw latching deadbolts engage automatically as soon as the door is closed. Because the door is always locked by three locking points, pressure is applied to the weather seals which reduces energy loss and protects the door against any warping.

German engineered inserts in the latching deadbolts are designed for smoother and quieter operation. The magnetically triggered latching deadbolts are wear and stain resistant.

"Fuhr were refreshingly approachable, MD Ian Ward and technical manager Stan Johnson took the time to listen to my wish list and make suggestions that I hadn't even considered," said homeowner Brian Newbon. "Before I started my research I knew that I wanted a lock that would not only complement my design, but would also provide superior levels of security."

• 0195 222 8777 • www.fuhr.de



PASSIVE FIRE PROTECTION FOR GENOME CAMPUS

PROMAT UK recently provided technical guidance and its Promat-250 lightweight board, to help create 60 minutes of passive fire protection for the structural steelwork of a new office building on the Wellcome Trust's 'Genome Campus' in Hinxton.

The 20 mm thick Promat-250 was used to encase the cell form steel beams of the building and allow service penetrations to be accommodated without compromising the fire protection.

In order to ensure that acoustic insulation levels were consistent throughout the building, the board was used to clad all the steelwork, even in areas where fire protection was not actually required.

Promat-250 is a non-combustible mineral-bound board. It can be used for structural steelwork and can provide up to two hours fire protection to mezzanine floors.

Gary Rutherford of Fire Shield said: "Promat provided a full, independent acoustic performance report. This helped us convince our client that the Promat Promat-250 solution would perform from both a fire protection and acoustic standpoint, making it a very efficient solution for this project."

• 0134 438 1350 • www.promat.co.uk



UTILISING SCATTERED LIGHT TECHNOLOGY

Aspirating Smoke Detection (ASD) has been added to the range of products available from PATROL following the announcement that the industrial fire detection specialist has signed an agreement with Securiton to distribute the ASD 535 detector in the UK.

EN54-20 Class A, B & C approved, the ASD 535 uses scattered light technology to detect increases in smoke concentration. It is able to match the requirements of different applications through five programmable alarm levels ranging in sensitivity from 0.002% obscuration per metre to 10% obscuration per metre. The company will be showcasing its ASD technology at Firex International (stand C125).

• 0118 970 1701 • www.patrol.co.uk

INCREASING EFFICIENCY AND LOWERING EMISSIONS

RINNAI says its 'tankless' form of hot water delivery has the potential to offer on-going financial benefits.

The company has invested in its new generation Rinnai infinity continuous flow hot water system, which it says resulted in the best energy efficiency figures in the industry due to its new low NO_x burner technology.

The recently released Infinity HDC1600i condensing water heater has been tested to below 20 ppm NO_x, producing the "lowest emissions on the market, with 107% gross efficiencies," according to the company.

The newly developed down-firing burner allows increased efficiency and reduces NO_x gases. The burner has a 13-1 turn down ratio of 58.4 kW-4.5 kW and is designed to be ultra quiet in operation. The Infinity 1600i low NO_x series is available with an output of 58.4 kW producing 16.2 l of temperature controlled hot water per minute (or 9.73 per hour), raised at 50°C.

• 0192 853 1870 • www.rinnaiuk.com



BIOMASS HELPS COLLEGE SAVE 400,000 KG OF CARBON

EUROHEAT says its biomass district heating system is helping Hartpury College, an agricultural and sports college in Gloucester, save 400,000 kg of carbon per year by making the switch to biomass technology in a bid to reduce its annual £800,000 energy bill, while receiving Renewable Heat Incentive (RHI) payments of just under £80,000 per year.

Simon Holden, co-founder of Euroheat, explained: "We have installed four Euroheat prefabricated Energy Cabins, each containing a 199 kW HDG Compact wood pellet boiler, integrated 14 tonne pellet store and 4,000 l accumulator. As a result, campus managers can now look forward to saving on the cost of over 150,000 l of oil previously used on-site, replacing it with the estimated 300 tonnes of wood pellets the boilers will use."

• 0188 549 1101 • www.euroheat.co.uk

GRANT UK LAUNCHES SLIM BOILER REPLACEMENT

GRANT UK has launched the Vortex Pro Combi XS, which it says is the slimmest 26 kW oil-fired condensing combi boiler on the market.

At 515 mm wide, the XS is designed as a replacement for older inefficient standard efficiency oil-fired combi boilers, which tend to be smaller in size.

The company says the Vortex Pro Combi XS has almost identical characteristics on both combustion efficiency and domestic hot water performance as its larger version and utilises all of the existing components. To save on space, however, the 24 l expansion vessel, normally located behind the front door of the boiler, is supplied as an externally fitted vessel kit.

The Vortex range features 46 different model variations, with outputs from 12 to 70 kW. The boiler has SAP2009 efficiencies of up to 93.3% gross (97% gross for SAP2005) and is designed to lower fuel bills and reduce carbon emissions.

The system is also designed to be "whisper quiet" in operation and utilises neon diagnostic indicators. It has an ErP energy rating of 'A' for heating and 'B' for hot water.

• 0138 073 6920
• www.grantuk.com



'FULLY CONNECTED' WATER HEATERS

RINNAI says that its continuous flow water heaters can now be fully connected to building management systems across multi-platforms.

"This expansive level of inter-operability for the range of energy efficient condensing gas fired continuous flow water heaters are compatible with the popular forms of Building Management Systems (BMS) used in today's modern buildings including Modbus and Bacnet," said Chris Goggin, Rinnai.

BMS provides automation, alerting, reporting and control capability, so facilities managers are able to regulate and measure multiple systems in the building from a central point.

"Traditional energy supply networks are under increasing pressure, with great volatility in supply, so it is essential that as a responsible manufacturer we do our utmost to produce economical and highly efficient products that will help to limit the overload," added Goggin.

• 0192 853 1870 • www.rinnaiuk.com

MAXIMISING HEAT PUMP ENERGY SAVINGS

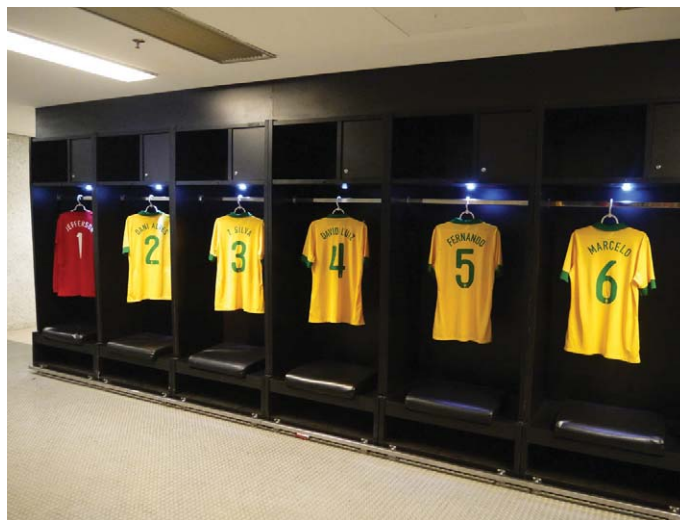
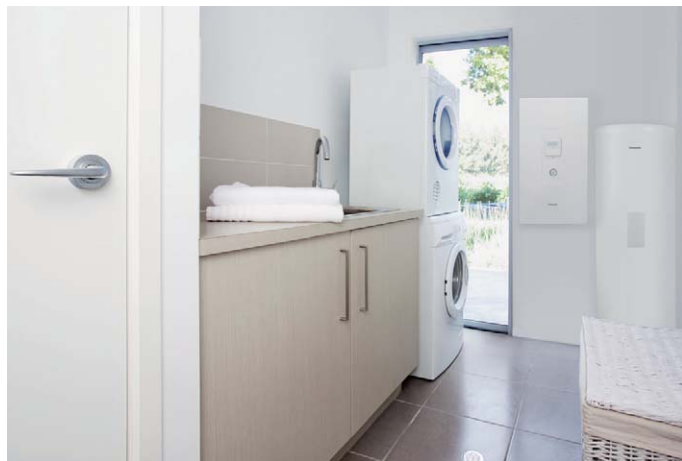
PANASONIC has added a bivalent controller to its Aquarea range of air source heat pumps.

The controller is designed to maximise energy savings in installations where the heat pump is operating alongside an existing energy source, for example in refurbishment projects, where there is often pressure to minimise investment costs.

The controller includes three different operating modes: Alternative, Parallel, and Boost/Parallel Demand. All necessary sensors are included in the package to operate both energy sources and a secondary pump.

A thermostat can be connected to stop both the pump and the heat pump/boiler according to room temperature. Marc Diaz, UK country manager of Panasonic Heating and Cooling, said: "It is very important in such systems to make sure that they operate at maximum efficiency, so that energy use can be reduced and running cost savings maximised."

• 0134 485 3182 • www.aircon.panasonic.eu



CONTINUOUS FLOW HEATING AT MARACANA STADIUM

RINNAI has recently finished installing its products in the Maracana Stadium in Rio de Janeiro.

The company's continuous flow water heating units were installed in the players' showers. Continuous flow water heating units can save up to 30% on fuel bills, according to the company.

The system's digital temperature controller is designed to ensure that there are no sudden changes in water temperature. As a failsafe, the unit will automatically cut the heater off should the temperature rise by 3°C above the chosen set point.

Rinnai says its continuous flow unit does not have the possible Legionella problems that some hot water systems can encounter as the appliance does not incorporate storage.

• 0192 853 1870 • www.rinnaiuk.com

PRE-ASSEMBLED BRASS PUMP PACK LAUNCHED

POLYPIPE has launched a pre-assembled brass pump pack for use with under-floor heating systems.

The unit is designed to limit the system's operating temperature to the optimal range of between 30°C and 60°C. The unit also has an easy left and right side manifold fitting, by rotating the pump pack through 180° before installing. Polypipe is also offering an optional high limit protection unit, which will turn off the underfloor heating system should the temperature of the water from the boiler exceed safe limits. By completely closing the two port motorised zone valve fitted to the primary flow pipe, the unit prevents water from entering the system.

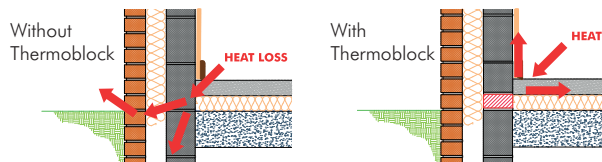
• 0170 977 0000 • www.polypipeuffh.com



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www.marmox.co.uk

COMPUTER CONTROLLED FACADES

GLASSOLUTIONS has installed an insulated glass facade with computer controlled integrated louvre-blinds at the new £6m Bennett Building at the Babraham Research Campus in Cambridge.

The DLS Ecklite SC system is manufactured by Glassolutions' sister company Eckelt, in Austria, and integrates an electrically operated louvre within the cavity, providing efficient solar and glare control. The louvres and other integral parts are permanently protected against weathering and are maintenance free.

Schueco FW60 curtain walling was installed to allow toggle glazing and silicone sealing of insulated aluminium panels, single glazed glass spandrel panels as well as the glass units containing the automated blinds.

• 0247 654 7400 • www.glassolutions.co.uk



MODULAR BUILDING PARTNERSHIP

Modular 105 has partnered with **COILLTE** to use its Medite Tricoya Extreme wooden panels in the construction of its outdoor modular buildings.

Medite Tricoya Extreme was specified to surround the structure of the aluminium frame of the building. Used as cladding for each of the outdoor structures, the panels acetylation treatment process is designed to be durable and resistant to fungi.

Paul Cameron, managing director at Modular 105, said: "The strength and ability of the panel to create a high quality finish is important to us when designing a project. Working with Medite Tricoya Extreme gives us the confidence that our final product will be able to withstand the elements, as well as produce an attractive building suitable for a garden or trade event."

Peter Clifton, product manager for Medite Tricoya Extreme, said: "Seeing Medite Tricoya Extreme used in exciting outdoor applications around the globe is extremely rewarding."

• 0132 242 4900 • www.meditetricoya.com



INCREASING WARD ACCOMMODATION WITH OFF-SITE BUILDING

THE PORTAKABIN GROUP recently completed a 34-bed emergency care ward using its Yorkon off-site building solution at Frimley Park Hospital.

The two-storey ward building which provides beds for critical and elderly care was handed over after four months on site. The new building has expanded capacity and was manufactured and partially fitted out off site in York which, the company says, cut the programme time by around half compared to site-based building methods.

The building's facilities include single en-suite rooms and six to nine-bed wards, clean and dirty utilities, kitchenettes, staff rooms, offices and stores. Externally it was finished in light grey with a dark grey trim and it has a flush, column-free facade. Yorkon's pre-installed concrete floor system was specified throughout the building.

• 0190 461 0990 • www.yorkon.info

CUSTOM SCREENING SYSTEM

LEVOLUX recently developed a custom screening solution for a new multi-storey car park in Bournemouth in order to obscure views of unsightly structures and vehicles.

The solution comprised Levolux's Infinity Fin system, incorporating 400 mm wide aerofoil-shaped fins, arranged vertically.

The fins were required in an assortment of lengths, fixed at contrasting angles and finished in a wide pallet of colours.

The application of the fins across exposed elevations was arranged to help break up the horizontal and vertical lines of the building. The company says this technique is often used to soften the visual impact of large structures, making them appear smaller and more sympathetic to their setting. All aluminium components, including the fins, were treated with a powder coating in a range of RAL colours.

• 0208 863 9111 • www.levolux.com



PIGMENT-FREE ROLLED ZINC

Zinc roofing, facade and rainwater system manufacturer **VMZINC**, exhibited for the first time at Vision, London Olympia, on 2-3 June.

The company showcased its Azengar product, an engraved rolled zinc finish for roofs and facades, on stand 93. The company says it has a subtle, yet distinctive, surface. It features a matt appearance which is unaffected by fingerprints and therefore said to be ideal for both exterior and interior use.

Azengar is pigment-free, and one of the lightest shades of zinc available. It was developed in response to feedback from over 400 international architects. Other colours to be shown include the Pigmento range of red, blue, green and its most recent addition, brown.

According to the company, rolled zinc is being used increasingly across all building sectors for both contemporary architectural designs and, through the VMZinc Heritage Division, restoration projects too.

• 0199 282 2288 • www.v zinc.co.uk

EXTERNAL PANELS FOR CREST NICHOLSON

KNAUF's SFS infill panels have been specified at a Crest Nicholson development in Portishead, Bristol.

Consisting of 94 one and two-bedroom apartments, the development consists of three concrete-framed blocks that are ranked in ascending order of height, from four to six storeys.

The SFS panels are constructed from floor to soffit of the primary structural frame, effectively infilling the external wall, and are insulated both on the internal and external face. The external face of the SFS panels carries 125 mm of insulation which is then protected by a rainscreen panel that is rendered with Knauf Render Systems.

The system can be installed from the inside of the building without the need for external scaffolding, cutting costs, and can be installed in all weather conditions.

• 0179 542 4499 • www.knauf.co.uk



'SELF CLEANING' CLADDING IN 16 DESIGNS

ROCKPANEL has recently launched the Brilliant range of cladding, which is available in 16 designs.

Applied on an aluminium or steel substructure, the boards meet the requirements for European fire class A2-s1, d0. The boards are weather and temperature-resistant and come with a ProtectPlus finish, which makes the boards self-cleaning. Dirt, paint or graffiti can be removed from boards with a ProtectPlus finish by using a solvent such as turpentine, or with the Rockpanel's Graffiti Cleaner.

The cladding can be curved and shaped without pretreatment and can be cut on site with standard wood working tools. The panels can be fastened either with screws, nails or rivets, or be adhesively bonded. The company says it is the first cladding manufacturer to receive a European Environmental Product Declaration, complying with EN 15804 (ECO-EPD) from BRE Global.

• 0165 686 3210 • www.rockpanel.com

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SLIP RESISTANT FLOORING FOR CARE HOME RESIDENTS

A combination of **POLYFLOR's** vinyl tiles and safety flooring have been specified at Anya Court care home in Rugby, Warwickshire.

Galaxy Flooring installed 1,300 m² of Polyflor's flooring in a number of cafés, relaxing therapy rooms, hair salons and a cinema room.

Hardwearing wood and stone effect vinyl tiles from the Expona Commercial PUR range were fitted in many communal areas.

Safety flooring was installed in bathroom en-suites and toilets used by residents, guests and staff to provide sustainable wet slip resistance in these areas. The Expona Control PUR range of LVT safety flooring in stone effect designs were installed in toilets on all floors. With a pimple emboss and carborundum-free safety particles for slip resistance in barefoot areas and shod such as wet rooms, Polysafe Hydro Evolve flooring in pastel shade Danube was fitted into the home's adapted bathroom and shower areas for all residents.

• 0161 767 1111 • www.polyflor.com



REDUCING IMPACT AND AIRBORNE NOISE

A. PROCTOR GROUP has supplied its Profloor Excel Batten and Profloor Dynamic Deck for the refurbishment of a former methodist church in Herne Bay, Kent.

The development will feature nine self contained flats with a shared communal area and storage space.

Profloor Excel Batten was specified for the main floor area of the flats. The company says the flooring significantly reduces impact and airborne noise pollution in multi-level buildings.

Profloor Dynamic Deck 26 was also used in areas with low ceilings, where a shallower depth acoustic solution was required in order to retain the original features and provide a high degree of isolation necessary to give significant improvements in impact sound insulation.

• 0125 087 2261 • www.proctorgroup.com

DIFFERENTIATING OFFICE WORKING AREAS

DESSO has recently launched the Transitions in Structure collection of four new carpet tiles, designed to create different working areas in offices.

Products with the EcoBase backing are produced with 100% recycled chalk, sourced from drinking water companies. The new collection is supplied with Desso's ProBase as a standard backing and the company says this bitumen based backing will gradually hold more "positively defined recycled content."

The Salt tile is a two-tone, high/low structure carpet tile with a natural organic structure. Rock has been designed in 12 shades to create zones.

Desert is a non-directional carpet tile which is textured with a subtly layered organic design in a choice of nine 'weathered' shades. The grain tile is available in a selection of 12 colourways.

• +31 (0)416 684 100 • www.desso.com



EASY CLEAN FLOORING FOR HEAVY WEAR AREAS

FORBO FLOORING SYSTEM's Flotex hybrid flocked flooring product has been installed at Whinstone Primary School.

Forbo's linear designed Flotex stratus, in the colourways fossil and onyx, was installed within 12 classrooms and one small group room.

The hybrid flocked floor covering is manufactured to be 100% waterproof, allowing the product to be washed right down to the flock. The company says this makes Flotex the perfect solution for areas that are exposed to heavy foot traffic on a daily basis.

Mike Poppitt, head teacher at Whinstone Primary School, said: "We were drawn to Flotex as we liked the carpet-like warmth and comfort it provided, whilst being highly durable and easy to clean. We were cautious in choosing a design that would mask any stains and dirt, yet in practice its cleanability has been totally proven."

Flotex also has been awarded the Seal of Approval from Allergy UK and features Sanitized, an anti-microbial treatment that offers protection against bacteria.

• 0177 374 4121 • www.forbo-flooring.co.uk

'CLOSED CELL' FLOORING FOR NEW SCHOOL

KNAUF INSULATION's Polyfoam Floorboard Extra has been specified by Sheffield City Council for the construction of two new primary schools in the city.

Polyfoam ECO Floorboard Extra has a 'closed cell' construction, which the company says results in a rigid and stable internal structure, ideal for this project where 466 pupils will occupy the building along with desks, chairs and educational equipment. Encon Insulation worked with Knauf Insulation's Technical Support Team and supplied around 3,300 m² of Polyfoam ECO Floorboard Extra to BAM Construction.

Paul Fisher from Encon Insulation said: "Polyfoam ECO Floorboard Extra was best suited for this construction as it can provide a U-value of 0.20 W/m²K, a thermal conductivity of 0.033 W/mK." The flooring is designed to be highly resistant to moisture absorption and provide a line of defence against moisture penetration.

• 0844 800 0135 • www.knaufinsulation.co.uk



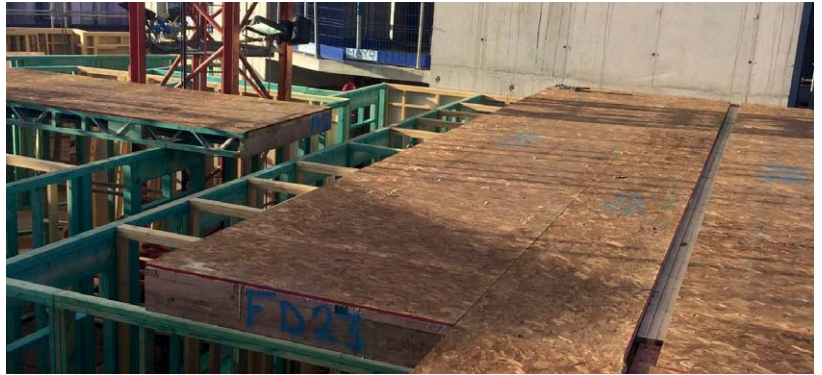
HEAVY COMMERCIAL FLOOR FOR SCHOOL HALL

Expona Flow PUR sheet vinyl flooring from **POLYFLOR** was recently chosen by Broad Oak Primary School in Didsbury, Manchester, for its dining area.

Launched earlier this year, the Expona Flow collection of heavy commercial sheet vinyl flooring features 50 wood, stone and abstract designs in a 2 m wide sheet format with a 2 mm gauge and a 0.7 mm wear layer.

With an in-built herringbone pattern, the Reclaimed Chevron design was chosen to complement the old parquet flooring in the school's assembly hall. Expona Flow flooring is cross linked and cured with Polyflor PUR polyurethane reinforcement for a polish-free maintenance regime. Polysafe Vogue Ultra PUR, a heavy-duty safety flooring with a multi-chip decoration, was also installed at the school. The Steel Blue 4740 shade was used in a corridor leading to the dining room and outdoor playground to provide sustainable wet slip resistance. The Expona Flow and Polysafe Vogue Ultra ranges both achieve a BRE A+ rating.

• 0161 767 1111 • www.polyflor.com



FIRE RESISTANT FLOORING FOR UNIVERSITY ACCOMMODATION

COILLTE PANEL PRODUCTS' SmartPly FR/FR Build OSB3 panels have been used as a flame retardant flooring solution for a new timber frame accommodation building at John Moores University and University of Liverpool.

During manufacture of SmartPly FR/FR Build OSB3, a water-based, eco-friendly, fire retardant is added, to ensure fire performance throughout the panel whilst maintaining structural integrity. The company says alternative post treatment fire retardant technologies can have a destructive effect on the mechanical or physical properties of the panel resulting in a tendency to crack or shatter. The panels are manufactured in accordance with EN 300, and suitable for use in flooring, roofing and wall sheathing applications. The company says the product enables end users to meet both CE-marked certified structural performance and FSC-certified environmental credibility.

• 0132 242 4900 • www.smartply.com

SAVING TIME AND WASTE

F. BALL has introduced new 15 l rectangular buckets for its Styccobond F41 carpet tile tackifier.

The rectangular packaging is designed to allow contractors to apply the adhesive using a roller dipped directly into the bucket, offering greater convenience, time savings and less waste.

Styccobond F41 is a solvent free acrylic polymer emulsion adhesive that contains a rust inhibitor. It is designed to provide a permanently tacky film, which prevents 'loose-lay' carpet tiles from moving under normal traffic, but enables them to be lifted and replaced when required. In addition to the new 15 l bucket, Styccobond F41 is also available in 25 l and 5 l bottles. Styccobond F41 can be used for securing a range of carpet tiles backed with bitumen/felt, non-woven fabric, PVC and other polymer backings.

• 0153 836 1633 • www.f-ball.co.uk



CUTTING INSTALL TIME

SETCRETE's 2K Pro levelling compound has been used to provide a smooth and durable surface for the installation of new floor coverings at a refurbishment in Solihull, Birmingham.

Contractors removed the existing vinyl floor coverings in the kitchen, which left a significant amount of bitumen adhesive residue. The company says that normally, before a levelling compound can be installed, this adhesive residue would have to be removed by mechanical means. 2K Pro has been specifically designed for use over adhesive residues. By using 2K Pro, contractors were able to avoid having to remove the residue before levelling the subfloor.

The compound can achieve a walk-on time of 60 minutes and new floor coverings can be installed in four hours. It can be applied to a range of properly prepared subfloors, including concrete, sand/cement screeds, terrazzo, granolithic paving, ceramic tiles, and directly onto Setcrete Rapid Set DPM.

• 0153 836 1633 • www.setcrete.co.uk

POWERING COVENT GARDEN'S FAMOUS PIAZZA

POP UP POWER SUPPLIES recently supplied six retractable service power units for installation in Piazza at Covent Garden.

The 450 kg units are buried out of sight, beneath the cobbled piazza, and are raised out of the ground when required by a turning handle. When not in use, the units do not impact on the historic appearance of the Piazza as they sit flush with ground.

Covent Garden's Technical Services Team needed a power solution for temporary stalls and events that are put on throughout the year. The solution was Pop Up Power Retractable service units located near to the Transport Museum and next to the Portico of St Paul's Church in the Piazza.

The Services Team now has access to a combination of 16 A and 32 A sockets in both single and three phase-all with RCBO protection.

• 0208 551 8363 • www.popuppower.co.uk



'SMART' ENVIRONMENT SENSING

SONTAY has launched the Smart Communication Sensor, designed to combine smart connectivity with intelligent sensing.

The new Smart Sensor can monitor a number of variables including temperature, CO₂, relative humidity, light level, air quality and fan speed. The range of seven sensors has been adapted to suit the needs of different applications such as offices, schools and hotels through a combination of the variables offered. A traffic light LED can also be incorporated to indicate excessive CO₂ levels within a room. Multiple measurements can be taken over the simple two-wire data bus. Auto baud rates can also be detected, which allows the device to accept data from a variety of transmitting devices operating at different speeds without needing to establish data rates in advance.

• 0173 286 1200 • www.sontay.com



LED LIGHTS DELIVER ENERGY SAVINGS IN BOURNEMOUTH

TRIDONIC says the installation of 400 of its LED lights in the multi-story car park at Bournemouth International Centre has delivered "significant" savings in the first twelve months.

The existing fluorescent gear trays were replaced with Tridonic's LED Boards and approximately 400 LCAI drivers.

Peter Portnoi, head of facilities management for BH Live, the social enterprise which manages Bournemouth International Centre, said Tridonic's low energy LED installation complete with motion sensors has saved 134,378 KWh of power and reduced carbon emissions by 45% in 12 months.

Steve Reid, managing director at Littledown, said: "In addition to the significant savings in energy that these new fittings have delivered we expect a significant reduction in the number of lamp replacements and all the fittings carry the standard five year Tridonic warranty."

• 0125 637 4300 • www.tridonic.com



AMENDMENT 3 COMPLIANT CIRCUIT PROTECTORS

CONTACTUM has unveiled its new non-combustible Defender single phase consumer unit range of circuit protectors.

The range comprises 12 different enclosure sizes and allows up to a 22 module board as standard and installers can combine boards to increase the number of outgoing ways. This board configuration also enables combinations of RCD, MCB and RCBO use.

The range is compliant with amendment 3 to the Wiring Regulations. The company says the purpose of this Regulation is to contain any fire within the enclosure, and to minimise flames from escaping, caused mainly as a result of poorly installed connections and poorly located units in the home.

"Using London Underground-approved low smoke and fume paint on the enclosure, the Defender offers maximum protection, ample cable space and an extensive number of cable entry points allowing easy installation," says Contactum.

• 0208 208 7419 • www.connectnprotect.co.uk

MICRONIZED TECHNOLOGY EXPANDED

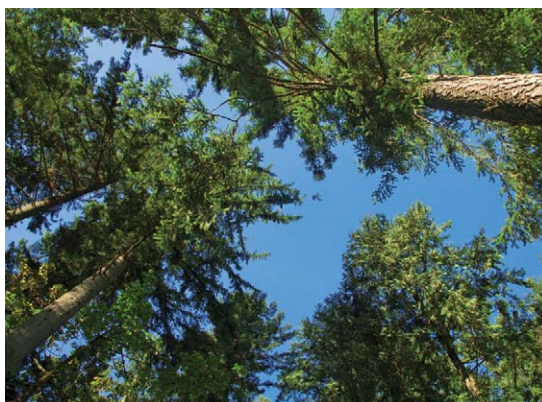
KOPPERS has extended its micronized copper treatment range, MicroPro, to include a lighter colour.

MicroPro uses micronizing technology that grinds the copper particles so small that they can easily penetrate the wood in solid form.

The company says MicroPro dries faster than alternatives and offers corrosion resistance for code approved fasteners and hardware. The range is also solvent free, allowing for direct contact with aluminium, without any degradation.

Chris Watson, managing director at John Brash, said: "Micro-Pro has proven very effective toward our timber decking in terms of the colour. The faint green wash mellowed to a copper brown before silvering, which is ideal for decking."

- www.kopperspc.eu



45-MINUTE CONCRETE REPAIR SYSTEM

HENKEL's Loctite 7257 Magna-Crete has been designed to rebuild, repair and protect concrete structures and floors from mechanical damage and chemical attack.

The company says that Loctite 7257 Magna-Crete not only creates a long lasting concrete repair, it is also possible to walk on after 45 minutes.

Typical applications include external steps, ramps and loading areas, support beam and footer repairs, bridge decking and supports, concrete bunds and walls, floor and tank protection.

The product is a two-component, quartz-filled epoxy and is available in 5.54 kg and 25.7 kg tubs and can be mixed and applied from -25°C to +45°C. Magna-Crete can be applied over existing rebar and screen mesh reinforcement, even if it is rusted.

- 0144 227 8000 • www.loctite.co.uk



NATURAL VENTILATION FOR LONDON PRIMARY SCHOOL

GILBERTS has developed a natural ventilation strategy for Our Lady & St Joseph's Catholic Primary School in Poplar, London, designed to allow the appropriate level of fresh air in, without excessive air leakage.

Each classroom features Gilberts' WHZ50 glazed in louvres with VN75 insulated dampers, a row of heating coils and attenuators. The louvres are strategically positioned to provide fresh air intake, through the external wall at low level, tempered by the coils to minimise heat draw, and high level 'used' air extraction on the opposite side of the teaching space. The school was made entirely from cross laminated timber and has achieved a BREEAM 'Excellent' rating.

- 0125 376 6911 • www.gilbertsblackpool.com

RESIDENTIAL SUDS SOLUTION

SKELETANK has launched a new range of products to address the issues faced by residential builders when designing and installing surface water drainage systems.

Skeletank systems are designed to manage surface water run-off within the curtilage of individual properties, providing infiltration and/or attenuation.

The main components of Skeletank systems are designed to be installed within the aggregate layers beneath hardened surfaces with minimal cover. The company says this shallow construction is cost-effective where there are ground issues such as contamination, high water tables or underlying rock layers. Due to the reduced requirement for excavation there are also CDM benefits. Chris Daws, Skeletank, said: "The systems have been specifically designed to provide flexible solutions to problems that those building residential property face every day."

- 0161 456 3476
- www.skeletank.co.uk



WIND TURBINE PROTECTION

A 55 x 8 mm version of **WINN & COALES' (DENSO)** Densoband was recently used to provide an expansion joint between the concrete and the steel anchoring in a gap in the channel of a steel anchor plinth base for a wind turbine foundation.

The purpose was to prevent cracking on the surface of the concrete base the turbine is anchored to, which can be caused by temperature differences and the vibration arising from movement of the wind tower. The Densoband strip is also designed to prevent any stone or gravel debris getting into the channel.

Densoband is a polymer-modified bitumen strip used for sealing joints. Providing a uniform flexible seal, it is designed for base and wearing course joints that can withstand thermal changes and the movement from traffic load.

- 0208 670 7511 • www.denso.net

SANICUBIX XL GIVEN WORKOUT IN DUBLIN

The **SANIFLO** Sanicubic XL, launched at the end of 2014, was recently specified at the Educo Gym in Pearse Street, Dublin

To replace its existing pump, the gym specified the Sanicubic XL due to its capacity to pump 40 m³/hour of black wastewater from multiple appliances. The pump services two WCs, six showers and four basins from the basement car park.

The Sanicubic XL has a 120 l tank capacity to ensure it functions efficiently when connected to several wastewater sources at a time. It also incorporates vortex technology, which discharges waste through 80 or 100 mm discharge pipes with 2 x 2 kW pumps. The unit is IP68 rated, giving it protection against submersion in water.

• 0208 842 0033 • www.saniflo.co.uk



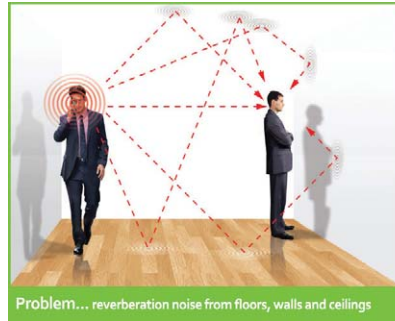
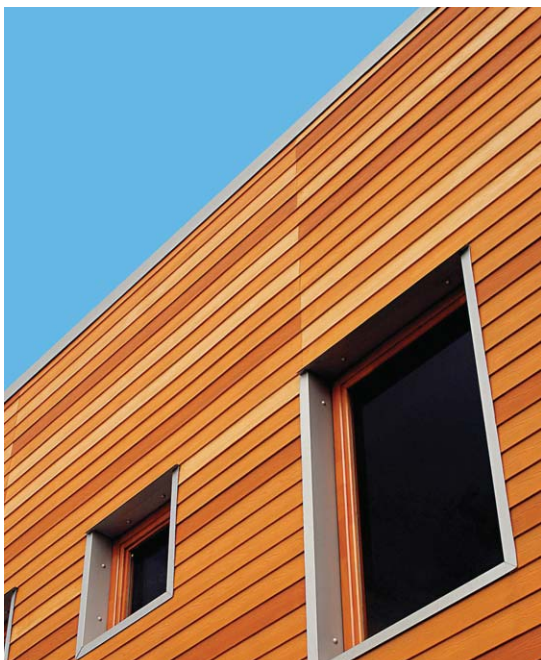
READY MIXED WOOD PROTECTION RANGE

DULUX DECORATOR CENTRE is extending its woodcare range with the launch of the new Dulux Trade Classic Select ready mixed range.

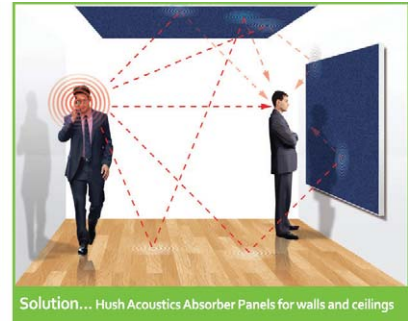
The Classic Select range is designed to allow the natural grain of the wood to show through and is available in four ready mixed colours, including Light Oak, Teak, Rich Mahogany and Rosewood.

The company says: "It's the only low build woodstain in the industry that offers such protection to professional painters and decorators, helping to prevent cracking, flaking and peeling."

• 0161 968 3160 • www.duluxdecoratorcentre.co.uk



Problem... reverberation noise from floors, walls and ceilings



Solution... Hush Acoustics Absorber Panels for walls and ceilings

RESOLVING REVERBERATION NOISE

HUSH ACOUSTICS has launched a consultancy service designed to offer practical, economical and friendly ways to minimise noise levels within all environments.

The company says reverberation noise is especially common in a building where there are hard surfaces. Sound waves bounce and reverberate against hard walls, floors and ceilings, creating noisy environments. Schools can be a 'hot spot' for reverberation noise, according to the firm, and other buildings like hospitals, churches and offices can have sound reverberation problems too. The solution is to add absorption to the areas that have reverberation noise issues, such as Hush Acoustics Absorber Panels for ceilings and walls, says the manufacturer.

The company undertakes site visits to carry out a survey, calculate the reverberation issue and then calculate the amount of absorption needed. Guidance on the installation of acoustic solutions is also a service that Hush offers.

• 0151 933 2026

• www.hushacoustics.co.uk

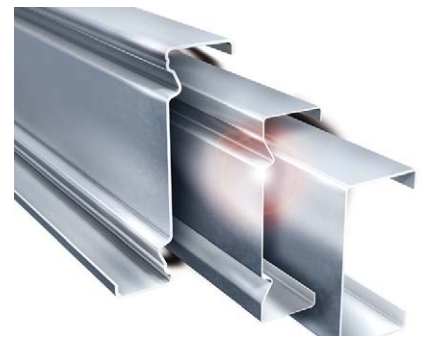
CALM LEARNING ENVIRONMENT

ROCKFON's Sonar X edge ceiling tiles were recently specified at a school which caters for children with autistic spectrum disorders.

Charlie Graham at ceiling installer StilSound fitted the Sonar ceilings using a Chicago Metallic T24 Click 2890 grid system. He said: "The Sonar X tiles were installed using a concealed suspension grid to avoid any discernible grid patterns which could become a distraction for the pupils."

Rockfon Sonar X edge tiles create a near-monolithic ceiling design thanks to the reduced seam between the tiles. Tiles are available in a bright white micro-textured surface with a high reflectance value of 85% and have a reinforced fleece which is coated with an enhanced lacquer.

• 0800 389 0314 • www.rockfon.co.uk



NEW PURLINS 'LOADS BETTER'

HADLEY GROUP has launched a new purlin and side rail system, designed to provide structural engineers and fabricators with system weight savings.

The UltraZED 2 purlins and UltraBEAM 2 side rails were developed in response to customer feedback, and deliver savings of between 6% and 13% compared to other market leading systems, according to the company.

There are now 59 UltraZED 2 sections manufactured from high strength S450 steel. These range from a section depth of 145 mm to 305 mm enabling engineers to design for spans up to 13 m. The products are designed to offer improvements to the load capacities across the full range of systems which include sleeveless double span, sleeved and Heavy End Bay systems. Brian Cartwright, product development manager, Hadley Group said: "We firmly believe that the resulting system is 'loads better'! It features a new purlin profile helping to ensure the whole system is both lighter and stronger."

• 0121 555 1340 • www.hadleygroup.com

LEGAL EYE



Shanti Shah, lawyer in the Construction team at SGH Martineau, looks at the legal issues surrounding Product Guarantees, examining the implications for both manufacturer and end user.

It is becoming increasingly common for manufacturers and suppliers of products and materials used in a development to be asked to provide a warranty or guarantee.

The losses a developer could suffer as a result of negligence on behalf of a contractor or architect can be severe, but these could easily be matched, or indeed be exceeded, by the impact of defective or faulty products.

As a result, developers, tenants, purchasers or other end users are now regularly looking for product warranties or more typically, a Product Guarantee (PG) to ensure they reduce their own risk and are as protected as possible, in the event of a faulty item or the damage one might cause.

As the name suggests, a PG is a guarantee that a manufacturer's product will not become defective during a prescribed 'guarantee period'. Should the product become defective and cause loss, it is the responsibility of the provider of the PG to rectify the defect and any additional damage caused (subject to the terms of the PG), at its own expense.

"It is essential for parties to evaluate all aspects of the commercial market and settings in which they operate as this is likely to have a bearing on a party's needs for a Product Guarantee"

In the event of a faulty product being identified as the cause of a problem, a contractor or subcontractor will generally have a remedy against the manufacturer, subject to the contract. However, an end user will have no contractual cause of action against the manufacturer and so the requirement

for a PG will provide the end user with the necessary contractual link to the manufacturer.

LEVELS OF PROTECTION

A manufacturer that cannot avoid providing a PG will at least want to limit what it offers under the terms of the guarantee. However, the continuing sale and popularity of a product may largely depend on the manufacturer providing such a guarantee.

MANUFACTURER PERSPECTIVE

When setting out the terms of a PG, manufacturers are likely to consider the following points, to minimise their financial liability.

- **Duration** – a manufacturer may want to ensure that a PG is provided for an appropriately limited period of time – the appropriate length of time will depend on, amongst other things, the nature and use of the product
- **Pre-conditions** – an alternative to an end user undertaking any necessary maintenance obligations is for the manufacturer to deal with them instead. A manufacturer's intervention might not only reduce the potential for a product to become defective and cause further damage, but also enhance the on-going commercial relationship between an end user and the manufacturer
- **Insurance** – a manufacturer may want to assess and obtain the appropriate product liability insurance as this can significantly reduce financial exposure
- **Limiting liability** – it makes sense for a manufacturer to ensure they put a cap on its overall liability under a PG, and limit the types of claims that it will be liable for
- **Assignment** – a manufacturer should appropriately limit to whom it owes a duty, subject to any assignment.

END USER PERSPECTIVE

Although the content of a PG will ultimately depend on what the product will be used for, or even the type of development it will be installed in,

generally there are a number of points an end user (beneficiary) of a PG should consider, including:

- **Duration** – an end user should ensure it is covered for a sufficient period of time depending on how long it will occupy a site and the conditions of the surrounding environment the product will be exposed to. Conversely, an end user should also be aware of having a PG for an excessive period of time, especially if it has to pay a premium which increases in line with an enhanced protection period
- **Pre-conditions** – a guarantee will often be conditional upon the beneficiary fulfilling certain obligations such as maintenance, minimising damage to the product and notifying the manufacturer in writing as soon as a defect is discovered
- **Insurance** – an end user's ability to be sufficiently indemnified under a PG may be dependent on certain conditions, like being insurance backed or ensuring the product is only installed by authorised personnel. Without the required insurance guarantee or ability to prove close compliance with installation and maintenance guidelines, a PG may be worthless, or indeed voided
- **Assignment** – an end user should consider whether it may need or be permitted to assign a PG to a prospective purchaser or tenant in the future and comply with the necessary formalities to ensure a valid transfer of the PG takes place.

The guidance outlined above provides a general overview of some of the matters to be considered in relation to a PG, but the specific terms in each case, will of course vary depending on the type of product and development in question.

It is essential for parties to evaluate all aspects of the commercial market and settings in which they operate as this is likely to have a bearing on a party's needs for a PG and/or whether a PG should be provided at all. In simple terms, if any doubt exists, the PG in question might indicate the need for Professional Guidance.

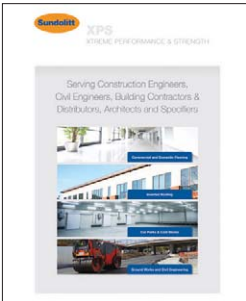
SHOWCASE

PRODUCT LITERATURE

• editorial@buildingproducts.co.uk • 020 8253 4605

SUNDOLITT

Sundolitt – the UK arm of Sunde Group, one of Europe's leading polystyrene products manufacturers – has launched a new set of specifier support literature aimed at helping construction and civil engineers, building contractors, architects and building materials distributors to select quickly and easily from a wide range of options of density, thickness, size and format of XPS board to suit every application. Sundolitt XPS is an extremely durable, thermal insulation board which is not only lightweight but is also able to withstand extreme loads.



• 0178 647 1586 • www.sundolitt.co.uk

GEZE UK

GEZE UK has launched a new product guide to make it even easier for architects, architectural ironmongers and specifiers to find the information they need. The GEZE UK Product Guide 2015 has been reordered to categorise the company's comprehensive range of door closers, window control systems, sliding door fittings, smoke and heat extraction systems into sections, so that information is easy to find at a glance. New for 2015 will be the OL Line range of controls for high level windows which will be launched next month. The illustrated technical guide replaces the contents of the firm's existing stylish binder and is available electronically or as a hard copy.



• 0154 344 3015 • info.uk@geze.com

HADDONSTONE

Haddonstone has launched a new 216 page catalogue containing the world's most comprehensive collection of fine architectural stonework and landscape ornaments. The catalogue has been divided into colour coded sections for ease of use. The 'Latest Designs' section highlights recent collaborations with leading architects and designers from around the world, including Robert A.M. Stern, Adam Architecture and Octagon Developments. Haddonstone has all styles covered – from architectural components true in spirit to the orders of classical architecture, to traditional styles and contemporary schemes.



• 0160 477 0711 • www.haddonstone.com

DULUX TRADE

Dulux Trade has launched its latest fandeck colour palette, featuring 2,079 tones. The fandeck includes an increased neutrals section and over 800 new shades and is arranged by hue with clearer sections. It has an improved chromatic colour flow and an added tonal structure for each stripe card, flowing from light to dark. The company has also launched a free tablet app, 'Dulux Trade



Paint Expert for Interior Designers', so users can create digital moodboards to share with clients. The updated 'Dulux Trade Paint Expert for Specifiers' app now features a visualizer functionality, along with the updated colour fandeck range.

• 0333 222 7070 • www.duluxtrade.co.uk

BARRIER COMPONENTS

Barrier Components presents its new brochure showcasing its unique range of hardware for glass. The literature showcases their Patch Fittings, Patch Locks, Latches, Bolts and Keeps, Door Rails, Wall Profiles, Cabinet Glass Hinges, Lever Hinges, GX Hinges, PVT Pivot Door Systems, Overhead Door Closers, Floor Springs, Transom Closers and Self Closing Hinges. Their range covers a broad selection of glass fitting options for commercial and residential installations offering solutions for both internal and external specification. Barrier Components has been supplying architectural hardware for 28 years from its Essex facility.



• 0170 889 1515
• www.barrier-components.co.uk

FERROB VENTILATION

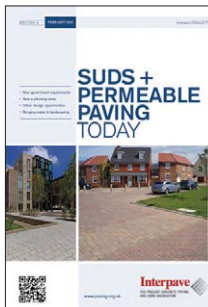
Ferrob Ventilation, recently acquired by Polypipe Ventilation, is pleased to announce the arrival of its new and improved website and Ventilation Short Form Product Guide to promote its range of residential ventilation products to the social and private housing sectors. The eight page Ventilation Short Form Product Guide has been designed to provide an overview of the company's product range, which includes intelligent bathroom and kitchen axial, centrifugal and in-line fans with features such as digital humidity displays and run time monitors through to energy efficient central extract and mechanical ventilation with heat recovery (MVHR) systems, in addition to positive input ventilation (PIV) units.



• 0163 529 9266 • www.ferrob.co.uk

INTERPAVE

The trade association Interpave has published a new edition of its 'SuDS + Permeable Paving Today' guide, reviewing the latest government measures for implementation of Sustainable Drainage Systems (SuDS) from April. Interpave's guide is essential reading for all those involved with the development process – particularly architects, urban designers and developers, and local authority planning, flood risk, drainage, building control and highways officers. It explores the latest thinking on SuDS as a fundamental part of urban design and initiatives to deliver them now.



• 0116 232 5170 • www.paving.org.uk

LUCIDEON

Lucideon, the international materials technology company, has launched a new website. Ceram and M+P Labs, materials testing and development providers, and CICS, a sustainability assurance body, came together under one brand, Lucideon, in February 2014. The new website sees the amalgamation of the group's services into one online presence. The new website is organised by sector, making it easy for visitors in each industry sector, such as Healthcare, Construction and Power Generation, to see content that is relevant to them. In addition to an overview of services, the website also has a new 'Insight Hub', a place where visitors can view case studies, experts and forthcoming events, download white papers, and read Lucideon's latest news.



• 0178 276 4428 • www.lucideon.com

SHOWCASE

COMPANY NEWS

• editorial@buildingproducts.co.uk • 020 8253 4605

FERMACELL

Fermacell, specialist manufacturer of "the ultimate building board" has signed up two equally high-performing darts professionals to help spread the message to professional builders. The company is sponsoring PDC professionals Dean Winstanley, who is ranked 26th in the world, and Daryl "Dude" Gurney, who is eyeing up a world cup place alongside Brendan Dolan, on a 12-month contract which includes them being badged up for live TV events and floor tournaments.



The sponsorship was unveiled during a fun-packed afternoon in Birmingham where more than 20 Fermacell customers and employees took on the professionals, who regularly travel together, hosted by top TV MC Paul Booth.

• 0121 311 3480 • www.fermacell.co.uk

ARMSTRONG CEILINGS

Following the launch of Phase 2 of the Government's Priority School Building Programme (PSBP), leading interior solutions provider Armstrong has launched a RIBA-approved CPD on ceiling solutions for education. The seminar, which earns RIBA members double points, meets RIBA's core curriculum subjects of designing and building it (design, construction, technology and engineering) and climate (sustainable architecture), both at a general awareness knowledge level. The CPD is designed to help architects better understand the new PSBP designs for schools and meet acoustic and thermal requirements to create a more energy efficient and comfortable learning environment.



• 0189 525 1122 • www.armstrong-ceilings.co.uk

DULUX DECORATOR CENTRE

Dulux Decorator Centre has recently been awarded the Investors in People Champion Gold status for the second time running. The prestigious award is the highest level of Investors in People accreditation, and is in recognition of continuing excellent standards in people management. The decorating specialists, with a head office in Altrincham, Cheshire, have been accredited by



Investors in People for over ten years, and recently applied for the Champion status to encourage good working practice in its network of over 180 stores across the UK and Northern Ireland.

• @DuluxDecCentre
• www.duluxdecoratorcentre.co.uk

BEA

BeA, the manufacturer of fastening tools and consumables for the building, timber frame and off-site construction industries, has strengthened its UK sales force to both augment and support its continued success and growth. Nick Brock and Ricky Roberts join the business as technical sales representatives with responsibility for different geographical areas. Both individuals bring with them a wealth of highly relevant experience covering tools and fasteners. Brock joins BeA as technical sales representative responsible for the West Midlands. Ricky



Roberts also becomes part of BeA's nationwide network of field-based, technical sales representatives. He joins the business with responsibility for London and the South East.

• 0148 288 9949 • www.bea-group.com

STENI UK

Specialist cladding manufacturer Steni UK is celebrating 50 years in business. The lightweight and low maintenance reinforced polymer composite panels which use a patented production method were founded in 1965 by Asbjørn Rønning from modest premises in Norway. Manufactured from polyester with a core of stone reinforced with fibreglass and a surface of crushed natural stone, the panels were particularly high impact, water and weather resistant and



quickly garnered media attention and interest from the construction industry far beyond Norway's borders.

Steni expanded rapidly and established companies in Europe and the USA, adding to what is now the Nature range with Steni Colour panels in 1996.

• 0197 881 2111 • www.steni.co.uk

ARCO

A new range of comfortable and flexible impact protection gloves from Arco, one the UK's leading safety companies, is enabling companies to stay ahead of PPE legislation and on top of costs. The Arco Impact Mechanics Glove and the Arco Impact liner offer excellent impact protection in a wide range of working



environments. Both gloves in the range offer impact protection and can be used in a wide range of applications from heavy engineering to general industrial use. And – of supreme importance to wearers – they are comfortable and dexterous. The Arco Impact Mechanics Glove combines rubberised impact protection for the back of the hand with level 5 cut protection.

• web.help@arco.co.uk • www.arco.co.uk/impact

PANASONIC

Panasonic has announced the winners of its inaugural Panasonic PRO Awards, which celebrates excellence across Europe in the design, specification, installation and commissioning of projects where Panasonic heating and cooling systems were installed. PRO Partners from the UK and Ireland were awarded prestigious prizes in four categories, including Best Residential Project in a Multi-dwelling, Best Residential Project in Social Housing, Best Restaurant Project and a Special Award for Best Contribution. The winner of each category has received



a once in a lifetime trip to Japan, which includes a visit to the Panasonic global Headquarters and to the ground-breaking Fujisawa Sustainable Smart Town. • 0134 485 3182

• www.aircon.panasonic.eu

BRICK DEVELOPMENT ASSOCIATION

Latest figures from the Office for National Statistics (ONS) released 6 May reveal that the number of bricks produced in the UK during the first quarter of 2015 is 464 million bricks (provisional) a rise of 22 million bricks or 5% from the same period in 2014. This comes on top of a rise of 17% during 2014 (to 1.8 billion bricks) compared to 2013 and demonstrates how the brick industry has



reacted strongly to meet increased demand from housebuilders. Four previously mothballed brick manufacturing plants were brought back into use during 2014 in Ewhurst, Accrington, Hartlebury, Claughton with a new manufacturing plant also opened in Chesterton.

• 0207 323 7030 • www.brick.org.uk

MILBANK CONCRETE PRODUCTS

Milbank Concrete Products, one of the UK's leading manufacturers of high quality pre-cast concrete products, is pleased to announce the launch of a new dedicated division for its bespoke spiral and helical stairs under the brand name of Kallisto. Milbank has been creating precast concrete spiral stairs since 2011 and has been commissioned for staircase installations in some of the most prestigious property developments in the UK. Following on from this success



it seemed a natural progression for Milbank Concrete products to create a distinct division with its own clear branding, to drive sales forward. Inspired by Greek mythology, the name Kallisto means 'most beautiful' and signifies how it is possible to be lifted by beauty, in all forms. • 0178 722 3931 • www.milbank.co.uk

JOHNSTONE'S TRADE

Leading coatings brand Johnstone's Trade has joined forces with award-winning social enterprise Fusion21 on one of its key frameworks. The partnership means that Johnstone's Trade is now the nominated supplier of coatings to Fusion21's 60 members across the UK, when they access its External Painting and Repairs framework. These members include a wide range of registered social landlords,



local authorities and NHS bodies. Frameworks are a pre-completed route to market providing a vehicle to centralise procurement spend. Using frameworks enables organisations to avoid the high cost and possible time constraints of running their own procurement exercises.

• 0192 435 4354 • www.johnstonestrade.com

KITE PACKAGING

Kite Packaging, one of the UK's leading packaging suppliers, has launched a range of bags to benefit the building, construction and landscaping industry. The first product in the range, FIBC bags, are made from woven polypropylene and can be loaded with up to 1 tonne of product. Most suited to dry, free-flowing products, they have strong lifting handles to be used with a crane or forklift. FIBC Bags are essential for builders, construction workers and landscapers, as they provide the



superior strength and tear resistance of a rigid container, but are much easier to transport. Kite has also launched a range of Rubble Sacks for a similar marketplace. The new sacks come in three different colours.

• 0247 642 0065 • www.kitepackaging.co.uk

HOWARTH TIMBER

Award-winning builders' merchant Howarth Timber and Building Supplies has launched a brand new online training academy designed to improve the knowledge and skill base of the UK building industry. The Howarth Timber Training Academy arrives on the market with a huge array of online courses that will



give building professionals confidence across a wide range of specialisms and products. Each course has a set pass rate and participants are tested at the end to see if they have reached the required level of knowledge. If they pass, they can then print off a certificate to acknowledge the achievement.

• www.howarthonlinetrainingacademy.co.uk

QUINN RADIATORS

Following Quinn Radiators' recent acquisition, its new management team is re-launching the business – unveiling a fresh vision for the future and reaffirming the company's leading position in the heating sector. With long-standing experience in the industry, the new leadership team has set out an ambitious growth strategy for the company – one that will increase market share for its leading panel and design radiators as well as its bespoke commercial heating and cooling solutions. It will focus heavily on delivering unrivalled product quality and customer service, while building brand value and enhancing the company's already long-established reputation. • 0163 365 7000



• www.quinn-radiators.com

POLYPIPE BUILDING PRODUCTS

To celebrate the launch of its brand new PolyMax plumbing fitting range, Polypipe is hosting a competition which will see one lucky winner drive away in a fully kitted out Ford Transit van. The contest, which offers the chance to win a fully-racked 2.2 l Ford Transit van worth around £20,000, £500 worth of fuel



and a selection Polypipe products, including Polymax fittings, is open to all plumbers and installers. As an added extra, the lucky winner will also receive all the products they need for their next underfloor heating project, up to a value of £3,000, and membership to the Polypipe Underfloor Heating Registered Installer Network.

• @plumbtothemax • www.polypipe.com

GE LIGHTING

A major piece of research by GE Lighting has revealed that consumers are far more willing to share private data with retailers, such as their mobile phone location, than previously imagined – and indeed that there is a real desire for the kind of in-store connected services this information could support. Only 21% of the shoppers surveyed said that they did not trust retailers to handle



their location data in a safe and secure manner, suggesting that concerns about privacy and information sharing may have been overstated. The survey, which was conducted in partnership with Retail Week, asked 1,000 consumers across a variety of age ranges about their opinions of indoor positioning systems (IPS) within their retail experience.

• +36 1 447 6399 • www.gelighting.com

STIRLING LLOYD

Stirling Lloyd, manufacturer of the Integritank structural waterproofing system, has appointed Anne Tattersall as its new marketing director as it looks to refresh marketing strategy and continue sales growth at home and in its export markets. Leading a revamped Stirling Lloyd marketing department which, it is anticipated, will expand further with other new appointments, Tattersall will be responsible for



designing and executing marketing strategy, pro-actively promoting the business and the products and providing enhanced support and collateral for the company's sales team. Commenting on her appointment, she said: "I'm delighted to be joining a business which already has an excellent track record and industry reputation."

• 0156 563 3111 • www.stirlinglloyd.com

DEWALT

DEWALT delivers a complete solution for the drylining professional with the launch of the new DCF620 18V XR™ Brushless Lithium Ion Drywall Screwgun. This latest addition to the already comprehensive range of anchors and fastening systems features the firm's Extreme Runtime battery technology and powerful brushless motor, providing drywall professionals with the performance and productivity they need to drive screws into wood and steel studs without the hassle of a power cord. The DCF620 is available with either two 2.0 Ah or two 5.0 Ah XR™ high capacity lithium ion battery packs with fuel gauge indicators as well as a naked unit. One 2.0 Ah battery allows the user to drive up to 2,250 screws per charge while the 5.0 Ah battery drives up to 6,000.

In addition to the on-site convenience and time savings associated with cordless power tools, the new DEWALT DCF620 Drywall Screwgun offers an 4,400 RPM (no load speed) which is comparable to the speed of a corded product. The DCF620 packs high performance into a compact, lightweight package weighing only 1.88kg with a DEWALT 2.0Ah battery pack. The DEWALT auto-feed screwgun has a quick release, easy-clean and rotating collation screw magazine mechanism for simple operation and hassle-free maintenance. The



Collated Screw Auto-feed Magazine also enables faster working, whilst minimising dropped/wasted screws. The attachment is capable of driving collated screws up to 55 mm in length.

• fixings@DEWALT.com
• www.dewalt.co.uk/fastenings

SCHLÜTER-SYSTEMS

Schlüter-Systems has made its mark at the home of England Rugby – Twickenham Stadium. The tile and stone solutions expert picked the historic stadium as the exciting venue for a unique two-day event. The interactive workshop saw an invited list of over 40 architects, specifiers, project managers and tile contractors attend from across the south of England to try their hand at assembling an entire wetroom and underfloor heating area using stand out systems and solutions products from Schlüter's extensive range, including preparation tile backerboard Schlüter-KERDI-BOARD, underfloor heating system Schlüter-DITRA-HEAT and CE-marked wetroom system solutions such as Schlüter-KERDI-LINE, Schlüter-KERDI-DRAIN and Schlüter-KERDI-SHOWER. • 0153 081 3396 • www.schluter.co.uk



RURAL ENERGY

Biomass boiler distributors Rural Energy and Herz are inviting heating engineers from all sectors to attend open days with free biomass workshops, taking place from 15-18 June 2015 at its Biomass Training & Skills Centre in Melton Mowbray, Leicestershire. The workshops will give installers from all backgrounds and disciplines an insight into biomass technology as well as a look at the brand new award winning Herz Firematic 499 kW boiler. Rural Energy's engineering experts will be leading two free workshops per day or visitors can partake in a simple 'Walk and Talk' session. • 0203 189 0676 • www.ruralenergy.co.uk



RADA CONTROLS

Rada Controls has recently won a 2015 iF Design Award in the Bathroom Products Category for its new healthcare hand washing and shower technology range. The Intelligent Care range has been four years in the making and is described as one of the most important product developments in the company's 94-year history. The range was developed by Rada to address infection control concerns in healthcare water supplies by taking a "revolutionary approach to faucet design." Combining clinical aesthetics with precise control functionality, the product range is designed to balance the needs of professional and patient users. • 0124 228 2599 • www.radacontrols.com



TRACA

The launch of Traca Software for mobile will transform and modernise the way tradesmen communicate in their work environment, according to the company. Tradesmen and the construction sectors are set to reap huge rewards following the launch of Tracatask.com, a fully-scalable mobile software solution which operates as a business tool. It helps to collaborate, report and task manage across multi-site and mobile worker businesses with the added benefit of social network opportunities for referrals. Traca allows mobile workers to communicate through the use of secure and private messages to multiple users, upload job progress, videos and images and vital documents in real time. • 0780 196 8340 • www.tracatask.com



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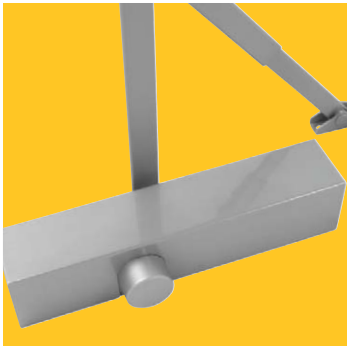
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