Introducing Fiamma.
Ingenuity starts here.

Fiamma flamed granite-effect natural aggregate flagstones are the most technologically advanced product produced by AG to date. The stunning flamed granite-style finish delivers an unparalleled aesthetic with a fine granite aggregate top mix. It comes Enduur level 2 as standard, is tested and classified as ‘low to extremely low potential for slip’ and receives the highest strength rating in the AG portfolio.

What a difference two months makes. Since the last PiP we’ve seen Russian aggression on Ukraine, staggering fatalities and Europe’s largest refugee movements since World War II. But it’s been heartening to see the architectural community accommodate, employ and educate fleeing Ukrainian architects.

As for the wider economic effects of the war, there’s no doubt that punitive EU sanctions on the Russian economy are having knock-on effects on construction supply chains. While building product imports from Russia and Ukraine account for just 1% of the UK market, the combination of reduced raw materials supplies such as iron ore and copper with the energy crunch is likely to make itself felt rapidly in a market where product costs went up by 20% in 2021. The Construction Leadership Council says they could rise by at least that again this year.

Add to this the Federation of Master Builders’ response to the ONS’s Construction Output Data in April, which highlights its concerns about spiralling product costs in an industry already suffering from skills shortages in key trades such as carpentry and bricklaying. The two together means, it says, ‘smaller building firms look set to suffer at a time when consumers are tightening their belts’. Its recommendation seems logical – suggesting redress for the government’s short-sighted energy policy by proposing a National Retrofit Strategy and VAT cuts on energy efficiency home improvements.

Vested interest certainly – but what’s good for the goose is good for the gander. Keeping small contractors in business in such a way serves the interests of architects, and their clients – and helps reduce energy use directly in the UK’s own long haul battle to net zero.

Jan-Carlos Kucharek, editor

Can we find a silver lining in this crisis?

PiP's on Pinterest! See the latest products on our Pinterest feed: pinterest.co.uk/productsinpractice

Pivot door at Prague Eyes public realm, Czech Republic. Photograph BoysPlayNice

More online:
Products with recognised sustainability marks attract higher rates of specification
Stephen Cousins reports on a scheme to verify the circular economy credentials of lighting products: ribaj.com/circularlighting

Contents
Compendium

Crystal amaze
Stirling and Gowan might have famously pushed the glazing envelope with the multi-faced Rodriguits on its 1963 Leicester University Engineering Building, but that doesn’t mean those coming after. After both eyes popped out of his hapless executioner, a spring veiled where Alban’s head stopped rolling, Religion’s a curious thing. None of this odd tale made it into Simpson & Brown’s

Hoop for the best
As it’s 10 years since we all enjoyed London 2012 Olympics fever, perhaps it’s the warm, sentiments the memory elicits that has PiP going all Mo Farah over architect Vittorio Massimo’s IVY luminaires for high-end lighting manufacturer Lodes. And that’s even though the Men’s Gymnastics Rings (gold medal) was won by Brazilian Arthar Zanetti. Perhaps Massimo was inspired by fellow Italian winner Matteo Morandi. We’re sure Morandi would raise an approving eyebrow at the black rubberised configurations that would allow him to use his legs as well as arms in his routine. Available in matte black and ‘terra’, any resulting routine that didn’t leave him flat out on the deck might be rewarded with the thermal performance!

Feel of steel
Poor pagan Alban, Persecuted and on the run, he converted to Christianity after being taken in by a priest, only to get arrested by the Romans and beheaded on the banks of the River Ver. After both eyes popped out of his hapless executioner, a spring veiled where Alban’s head stopped rolling. Religion’s a curious thing. None of this odd tale made it into Simpson & Brown’s

Pride before the fall
Not sure if poet Dante Alighieri would approve, but there is actually a cocktail named after him – although it seems to come from anywhere but his home patch of Tuscany. Mexican tequila, Green Chartreuse, a German liquor called Kümmel, sugar syrup and lime, garnished with a salutary leaf of basil.

Pulling out the stops
Ah, what goes around comes around – hands up all who remember cork wall tiles from the 70s? But now it’s new, improved and in the circular economy, courtesy of new brand Recork. The firm takes raw cork from Portuguese cork oak forests and turns production waste, used for stoppers and cork from early harvests, into flooring planks. Una, its first range, is agglomerated cork plank made simply from waste cork, with a synthetic binder. It’s available in six shades, coloured with plant-based oils and, the PR claims, has excellent resilience. So next time you’re taking out the recycling, you can do it knowing that every wine bottle can now be sunk guilt-free.

Off button? What off button?
If you’ve wondered what it would be like to have a jacuzzi for a shower, look no further than Kelda’s new BubbleSpa, launching this summer. Your eyes do not deceive you; yes, instead of the usual jets, apparently this baby delivers big, fat 70mm water bubbles that give you the gist of what it’s like to be in a UltaPamperWippa chocolate fountain, although Kelda likens it to a ‘soft rhythmical fingertip tapping’...synonymous with traditional Swedish massage techniques. If that wasn’t enough, it’s got an LED illuminated shower head, with resonating sound effects as the bubbles ‘tap and burst on the skin’. The firm says its ‘BubbleSain’ is the result of 10 years’ research in ‘air-powered technology drawn from cutting-edge aerospace engineering’, Sensory overload?

God is in the detail
If you thought the last piece of decent modern altar action was when Henry Moore carved out the circular one beneath the dome at Wirraw’s St Stephen Walbrook, then take a look at what’s going on at St John Chrysostom Church in Peckham. The modernist church was designed 300 years later in 1966 by architect David Bush to replace two bombed-out churches in the area.

Products In Practice May/June 2022
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The world’s thinnest inverted roof insulation just got thinner.

**U-value chart**

<table>
<thead>
<tr>
<th>U-value req. W/m·K</th>
<th>Quantum(^*) (mm)</th>
<th>Extruded (mm)</th>
<th>Expanded (mm)</th>
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<td>320</td>
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</tr>
</tbody>
</table>

Sample range of U-values based upon a typical roof terrace construction with a 200mm concrete substrate and product Lambda value as noted.

**ProTherm Quantum\(^*\) PLUS\(^+\)**

- BSA Agrement Certified 20/5789.
- Satisfies NHBC requirements Chapter 7.1, flat roofs & balconies.
- Robust coating, Patent protected.
- Can be used within a system that meets BPO(H) fire requirements of Building Regulations Part B.
- Suitable for zero falls under hard or soft landscaping.

Ilona Rose House, Charing Cross

To meet the 0.10W/m\(^2\)K U-value requirement within the available 100mm insulation zone, ProTherm Quantum\(^*\) PLUS\(^+\) Hybrid was used in a zero falls application to all terraces, providing level threshold access between internal and external spaces.
Real prospects in virtual worlds

The term metaverse was first used by Neal Stephenson in his 1992 novel Snow Crash, to describe a virtual-reality-based successor to the internet. The idea is now gaining attention worldwide, but giving it a definition today is like giving a definition of the internet in the 1980s; the possibilities are endless and thanks to technologies such as spatial computing, blockchain, virtual reality, augmented reality and mixed reality, it will go beyond the current internet. We can visualise it as a network of virtual worlds, built as massive multiplayer online games and powered by blockchain and cryptocurrencies.

In the last few months the term has attracted much attention from media and investors. Millions of dollars have been spent on plots of digital land in virtual worlds like Decentraland and Sandbox. In these virtual worlds, people can organise events, meet other people, invest and monetise. The list of influencers, artists, celebrities and brands buying assets in the metaverse is constantly growing, influencing other people to invest in virtual land plots to become neighbours of these celebrities, hoping that their assets will increase in value over time.

These digital assets are owned in the form of non-fungible tokens (NFTs) – unique units of digital content linked to the blockchain that assign them a unique identification code and metadata certifying their existence and ownership in the digital environment. How does this relate to architecture?

One of the characteristics of the metaverse is its spatial nature, represented in 3D virtual environments or in augmented reality applications that extend the physical space. Architects are part of those professionals, like game developers, 3D artists etc, who mastered 3D and virtual reality expertise, and this can place them in a good position to contribute to what the metaverse will become. Since people are recognising value in the virtual realm as a platform for connecting people and sharing experiences, we should reflect on how we can contribute, as architects, to make this virtual realm a positive environment for communities and a new dimension for humanity.

If we analyse some of the metaverse projects developed so far, we can see spaces and elements that replicate the physical reality, such as roofs, bedrooms and restaurants, although most of these elements can't fulfil their main functions in the digital environment. As architects, we could investigate what the metaverse genius loci is and use our expertise to help build an environment designed in relation to functions and services that the metaverse can offer. This could create new business models for our profession, transforming our 3D digital designs from a tool to express our ideas to the final product experienced by customers.

The metaverse will require a new range of assets and digital experiences. Architects could start developing digital products, experiences, virtual worlds and services that could serve the future evolutions of the metaverse – a digital infrastructure that will connect people.

Another important aspect to consider is the extension of the physical dimension of a building in the digital realm thanks to mixed reality, spatial computing and digital twins. Architects could become the bridge between the physical and the virtual world. Imagine designing a theatre based on physical constraints and then being able to extend it in the virtual realm, allowing millions of people to attend events in that theatre through virtual reality.

I believe the metaverse can be an important opportunity for our profession. And our contribution can help to build a better world both in its physical and virtual dimensions.

Mattia Santi is co-founder and director of London-based Sas Studio
See more on opportunities for architects in the metaverse in the RIBA Journal.

Above Visualisation of the central atrium of Sas Studio’s GEM Tower design.

Millions of dollars have been spent on plots of digital land in virtual worlds like Decentraland and Sandbox.

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POWERMATIC®
The concealed door closer
This is a prescient time to discuss making building heating systems more sustainable and economical. Action on the climate crisis has set an indubitable logic to the context of heating homes and buildings efficiently, but arguments about how and when have usually about how and when have usually focused on the high upfront costs as a prohibitive factor in the mass adoption of more sustainable methods and systems.

This PiP, however, goes to print just a few days after the UK’s long anticipated domestic energy price cap hiked by an initial 54% and it was so embedded in the floor, structure it would take two to three days to heat up,’ says Charles. ‘We’d finished our business and were looking for what to do next when one of our friends said underfloor heating is the future.’

The difference with Wunda’s underfloor heating system is that the pipes are located in channels in boards right under the surface of the floor so you get instant heat, like a conventional radiator – not 5-6 inches under as has been customary with underfloor heating. It means the system is more flexible in use and application. WundaTherm can be retrofitted onto existing floors or timber joists, for example, so more homes can benefit from the efficiencies of underfloor heating which heats rooms more evenly than radiators do.

Wunda has spent 16 years making its system as efficient as possible, including by using 16mm diameter pipes instead of the usual 10/12mm for more surface area to spread heat, closer centres, and pioneered using an aluminium-lined pipe that creates 18% higher heat efficiency. The result is the system can run at 35-45°C, saving energy and the expense of heating to higher temperatures.

Different temperature zones according to use, avoiding unnecessary energy use and expenditure up to 30% on heating bills with easy-to-tailor schedules. The system is affordable, offsetting the initial installation cost compared with recent energy price rises with longer term savings. Unique features include using a long-range RF signal, separate from Wi-Fi, which can be used for up to 50 radiators across 30 rooms so applications can be incredibly diverse – all types of homes and buildings. The system is also geofenced so data privacy is held within the hardware, not captured to the cloud like existing systems – providing additional security.

WundaSmart has received a 4.5/5 rating by TechRadar – the highest for any smart heating system. Some of the next steps for the company? The answer is expansion into other innovative sustainable heating technology potentially including heat pump development that would make it affordable to more. Wunda is ready to be a relevant partner to architects meeting project sustainability goals – and the time is definitely right. ● Produced by RIBA in collaboration with Wunda Group

**Pipes sit in channels in boards right under the surface of the floor, so you get instant heat**

**Left** WundaSmart has separate thermostats in each room paired with smart radiator heads to reliably control individual room temperature as both for radiators and underfloor heating from its mobile app. **Above** The WundaSmart pack includes a boiler piece, thermostats and radiator valves. **Below** The underfloor heating system sits right under most types of floor as boiler temperatures can be lowered from the usual 70°C to 35-45°C, saving energy and cost.
Refugee Job Support

Free job posts for RIBA Chartered Practices offering employment opportunities for displaced architects and architecture students.

What to include in your posting for refugee job support?

- Concisely describe your practice: its size, expertise and values.
- Location: where will the role be based; is it office, hybrid or home-based working?
- Role: outline the position and skills and knowledge required.
- Accommodation: describe the type and location of accommodation you are offering. It must be for a minimum of 6 months.
- Salary: what salary are you offering? All positions need to meet the living wage
- Call to action: is there a deadline for candidates? What information do you want to receive from candidates when they first contact you?
- Contact details

For more information, please contact: Rupesh Varad, Job Board Sales Manager at RIBA Jobs: Rupesh.vara@riba.org.

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RIBA Architecture.com

Spine, Liverpool

What Voronoi facade cladding

Where The Spine, Liverpool

Fourteen storeys tall and at nearly 14,900m², The Spine by architect AHR is the new northern headquarters for the Royal College of Physicians, part of Liverpool's new £1bn ‘Knowledge Quarter’. Under the RCP's strict biophilic brief, the building was designed to ensure its users left it healthier than when they entered. Part of this approach, says AHR director and head of sustainability Robert Hopkins, was the use of MERV 15 filters to deal with air filtration and purification – and Coronavirus – as well as air quality monitors throughout the building to give real time updates on PM1, 2.5 & 10, NOx, VOCs and CO₂ – which has helped it gain its WELL Standard Platinum accreditation. But the most obvious expression of The Spine's salutogenic (wellness) ethos is in the design of its highly distinctive Voronoi glazing system. Based on planar polygon diagrams first expounded by 19th century Ukrainian Russian mathematician Georgy Voronoy, the patterns already exist in nature in things like fruit peel, giraffe fur and human skin – which was the inspiration here. Most of the 1,500, 4.2m by 1.5m argon-filled, double glazed panels have been coated in a Voronoi pattern made up of 23 million polygons. The bespoke frit was developed using an algorithm applied in Grasshopper that responded to inputs on heat gain and internal environment quality.

Some inputs are simple: one basic rule was that there would only be 25% coverage of glass on the north side, 52% on the east and west and 39% on the south face of the building. Then these were applied to MEP engineer Arup's dynamic environmental and energy performance model to ascertain what the effect would be on the architect's pattern design. ‘Factors affecting this were also steel framing to glass ratios and glass performance itself,’ explains Hopkins. ‘We had to play with all the ratios until we hit a sweet spot.’ This was only achieved after more than 20 iterations of the facade design, each taking around eight hours just to run the modelling software. Choosing the final design was much easier – decided by members at Loudon's London RCP HQ using full-height 12 page prints of key panels.

Procured as a D&B project, Hopkins says developments in liquid ceramic ink-jet application techniques meant contractor Morgan Sindall was not phased by the idea of creating the panels, each of which is unique; it merely involved AHR to ensure it had the correct digital information. This included identifying each completed panel with a barcode to ensure correct positioning on the facade. Subcontractor FK Group prototyped and printed the glass in Spain. Panels were made up of 13.5mm Saint-Gobain Planiklear PVB laminated glass, 10mm cavity and 10mm toughened glass inner layer.

Hopkins argues that the facade is not just about generating a novel, heat-gain mitigating facade; there are significant user benefits. ‘When the sun shines it creates amazing shadows that pass across the building’s interior, much like Japanese shinrin-yoku forest bathing and light through a forest canopy,’ he explains. ‘The light’s dynamic and changing nature has a positive impact on cognitive function. It keeps the mind subconsciously alert and active.’

And Hopkins claims to have seen its effects evidenced. ‘I was in one of the double height spaces when the sun broke through everyone went quiet – the shadows are small but you can actually see them moving across your desk. It’s really quite mesmerising!’

We had to play with all the ratios until we hit a sweet spot.
Distinctive design and impressive performance – in other words VELFAC windows

VELFAC composite windows combine an excellent performance with the distinctive design required to realise architectural visions.

WESTWOOD STUDENT MEWS, COVENTRY
‘Very little visible difference’
The location of Westwood Mews, designed by architect HAUS, challenged the versatility of the VELFAC system. Across the site we had to specify 14 variations of VELFAC window units, in three different sizes, with every ground floor window also meeting Secured by Design standards, explains architect Ewan Proctor-Mason. ‘As north-facing blocks border a high-speed railway line, triple glazing with acoustic trickle vents was required. South-facing facades are quieter but as solar gain can be an issue we installed double glazing with a wider gap between panes, which helps minimise overheating. All this was achieved with very little visible difference, externally, between units because of the VELFAC system’s uniform sightlines.’

AISHER BOARDING HOUSE, SEVENOAKS SCHOOL
‘Celebrating the window’
The distinctive exterior of Aisher Boarding House, designed by Tim Ronalds Architects, features handmade brick and tile facades below pitched roofs of natural zinc, with the pale colour palette, textural finish and window placement deliberately reflecting the nearby 19th century Park Grange boarding house. ‘We wanted to celebrate the window as an object within the facade, rather than being simply in a hole in the wall,’ say the architects, ‘so we designed pressed metal “picture frames” around every window and door, which sit in both the brick and tile elements of the facade.’ The minimalist VELFAC one-piece frame design – where window sash becomes window frame when closed – proved ideal for TRA’s design concept. ‘White polyester powder-coated VELFAC units were the neatest and cleanest solution, and deliver the maximum of glass and the minimum of frame in every window.’

PERIGON HEIGHTS, BROMLEY
‘Level of detail ensured a perfect fit’
As well as complementing Perigon Heights’ distinctive style, VELFAC design support was also key to the success of this luxury residential block by developer Purelake and ECE Architecture. ‘We had our own dedicated VELFAC designer who worked closely with ECE Architecture and produced drawings for every single window and door,’ explains Purelake construction director Noel Convert. ‘This level of detail ensured a perfect fit on installation, significantly minimising problems and saving time when the windows arrived on site. In addition, the VELFAC team ensured all glazing installed met the energy and noise control targets identified in our reports and according to the requirements of our local planning committee. As a result, we were able to install a mix of double and triple glazing across the project, with performance tailored to the individual facade.’
Prague Eyes, Prague

Czech practice Brainwork has created a series of large ‘glass eyes’ along the capital’s Vltava river embankment, providing the focus of a new cultural hub

Words: Adam Štěch    Photographs: BoysPlayNice

“I like the fact that this project was born of nascent independent cultural activities by local organisations, but ended up being supported and developed by the municipality as a key way of improving Prague’s city centre public space,” says Petr Janda, Czech architect and founder of Brainwork studio, who co-initiated and designed the Prague Eyes project.

Janda, who studied both architecture and sculpture, has been running his practice since 2008 and collaborating with a number of independent Prague cultural promoters. Together with one of them, Ivo Slavík, he grasped the potential of Prague embankment (Náplavka) 12 years ago when the site, in the historical centre of the Czech capital, was used just for parking cars and materials storage.

‘Around 2007, we were discussing what new cultural activities might take place on the riverside, which at the time was completely underused,’ says Janda. ‘We wanted to initiate a process of converting the riverside into a cultural and public recreation space. In a way, Prague Eyes had been around since then.’

By 2009, the project was designed and showcased internationally, covered by blogs and magazines, and the city seemed fascinated by the simple but striking architectural solution. In the meantime, the Prague riverside underwent a lot of changes. Farmers markets, kiosks, restaurants, sport facilities, galleries and shops spread around it, turning it into one of the country’s most visited destinations.

‘Over that time, we worked on a number of projects to make the riverside as cultural as possible,’ says Janda. ‘We built a floating platform, called (A)Void, bringing boats to the riverbank, where we organised concerts and exhibitions. Over that time Prague Eyes was also gestating but had to wait another 10 years from idea to realisation.’

The (A)Void initiative was very well received by the Prague municipality, which decided to put through embankment funding to establish the

‘While the technical design was complex, the biggest challenge was bringing the Prague municipality on board’

The east bank of the Vltava river, looking east to Zilínky Sady park with the ‘eyes’ set into the embankment. These form part of the wider regeneration of both city-centre riverbanks. Frank Gehry’s ‘Dancing House’ is off-frame to the left.
largest and most expensive public space intervention in the city since 1989. This phase completed two years ago as a series of 20 spaces running along the river as rental units for business and cultural use and was longlisted for this year’s EU Mies Award. ‘It’s an ongoing project with new spaces, completing in three stages with more construction to come,’ Janda adds.

Prague Eyes is a symbol of local renewal and marks a renaissance for public space in the city. The embankment itself, constructed in the 19th century, was built for loading and unloading goods. But by the 20th century, its large, vaulted spaces tucked within the high riverside walls were mostly empty or used as ice-houses. Their reuse as cultural and entertainment spaces chimes perfectly with the changes to the Prague riverside in the last decade.

Janda says the idea itself came about quite quickly. ‘My thought was to create bays along the riverside which would open to a public walking and relaxing on its paths,’ he says. ‘The large glass openings were seen as forms that corresponded with the original urban context and purpose of the spaces. While the technical design was complex, the biggest challenge was bringing the Prague municipality on board in the first place.’

His aim was to create a design that integrated into the existing environment of the riverside wall. ‘All embankment elements are designed as a symbiotic fusion with the original architecture of the embankment wall into which they grow and, via small interventions, they create a monumental whole,’ he adds.

Entrances to the six main spaces of Rašín embankment are based on completing the geometry of the existing tunnel-like openings.

‘The glass portals are fabricated as bespoke steel frames of low-e glass, each weighing more than a tonne,’ explains Janda. ‘The composition of the openings themselves is framed by stone stepped forms at their bottoms, which actually hide access to a services shaft under the portal, containing air vents and flood protection measures.’

The seemingly simple circular glass openings were, in fact, extremely difficult to manufacture, requiring specialised input from Czech and international subcontractors, with local firm Sipral Construction developing the...
bespoke circular steel frames. Janda says glass specification was very problematic, with standard flat glass only being produced in maximum widths of 3.2m. So they had to find a suitable producer of ‘organic’ glass able to take on the project. In the end they went to American company Reynolds Polymer Technology, which manufactured the glass in Thailand before, aptly, delivering it to the site by boat.

The resulting elliptical pivot windows each have a 5.5m diameter, a 70mm thickness and, together with the frame, weigh more than 2.5 tonnes, making them probably the largest pivot windows in the world. Janda describes this aspect as the project’s most difficult challenge. Movement of the doors is solved by actuators, with windows fixed in a 60-degree ‘open’ position, with some of the doors opening via motion sensors. A different approach was used on 14 spaces on the opposite side of the river. Instead of large glazed openings, Janda designed bespoke curved metal gates.

In these spaces, some containing public WCs, entrance wings pass in an arc into the interior membrane separating cubicles from the public anteroom. Spaces can, at any time, serve as cafés, clubs, studios, workshops, galleries, a local library and neighbourhood meeting rooms. ‘The architectural solution works with an amount of modular diversity,’ says Janda, ‘with their rental linked to a detailed use specification, which includes items such as operations or technical kit. An operation and maintenance manual was devised, stating where additional elements like mezzanines or exterior terraces are allowed to be positioned.’

‘Janda’s work on Prague embankment is ongoing with more projects and smaller-scale improvements in the pipeline. ‘I’m really happy about the outcome,’ he declares. ‘We see it as another step to make our public spaces better, more functional and beautiful.’

The next phases of the revitalisation will, he says, see street furniture, free-standing toilets, floating baths, a floating jetty and a toilet block, as well as looking at the lighting system and public safety aspects. One aim is to reduce the number of boats and pontoons moored on the embankment so as not to block the contact between the newly opened vaults and the river itself. But whether there necessarily needs to be a disjoint between the concept of a working river and technically advanced architecture as a catalyst of cultural and spatial renewal is perhaps an issue that the always-engaged Brainwork can address in the future. •
**Specified**

“Three hundred years? Pah! That’s not old! Oh yeah, you go round biggin’ up your historicity, Mr high and mighty fancy-pants Hanover Square, but you don’t know mushfink. Us granite blocks might be newly cut, but we was custom-hewn from the mystical territory of Fujian Province and transported here across mighty oceans to frame YOUR restored vistas – which you lost – and provide the well-heeled backdrops of Mayfair with unobtrusive seating solutions! We rule this joint now! Three hundred! Hallo! THREE HUNDRED MILLION, YA LOON!”

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**HI·MACS Surfaces**

**HIMACS lends luminosity to new Düsseldorf bar**

HIMACS provides glorious visual impact at The Paradise Now, a new hybrid restaurant, bar, bistro and club in Düsseldorf

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**TRANSLATED FROM THE VENUSIAN**

- Good golly goosh, where did those come from?
- Earth! Must be a SNAFU with a quantum transmitter. Happens a lot now, what with working from home and so on. Some unlucky physicist just landed on the floor! Lovely, though. Barge Mogensen designed them for his balcony. Unfinished FSC certified teak, marble aesthetic. When the bar is lit up in the evening, the marbling of the solid surface material shines through even more, stylish wall panels, also in backlit HIMACS, with inset elements at different depths cover 10m of the back wall behind the bar.

---

**Above** The bar’s visual highlight is a custom-made 16m-long bar. HIMACS solid surface material in backlit lapis for a dramatic effect.
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Five people selected at random who complete the survey will win a £50 John Lewis voucher.*

All information provided will remain anonymous.

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**Costed**

Supply and installation costs for a range of landscaping, drainage and street furniture, provided by Gleeds’ Nicola Herring and James Garner

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**Costed**

Supply and installation costs for a range of landscaping, drainage and street furniture, provided by Gleeds’ Nicola Herring and James Garner

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**Landscape & Place**

---

**Soft landscaping and planting (£/m²)**

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**Roads, paths, paving and surfacing (£/m²)**

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<tr>
<td>Rain bandied 10mm-20mm dressing aggregate pathways</td>
<td>£85-£100</td>
</tr>
<tr>
<td>Tarmac road paving – two layers, tarmac or giloose chipping finish</td>
<td>£85-£100</td>
</tr>
<tr>
<td>pavers; including excavation and type 1 sub-base</td>
<td>£115-£140</td>
</tr>
<tr>
<td>Grasscrete Grasscrete, 100mm thick for cars and light traffic – in situ</td>
<td>£115-£140</td>
</tr>
<tr>
<td>continuously reinforced cellular surfacing; fill with topsoil and peat</td>
<td>£115-£140</td>
</tr>
<tr>
<td>(S1) and fertiliser at 35g/m², seed with dwarf rye grass at 35g/m²</td>
<td>£115-£140</td>
</tr>
<tr>
<td>Grasscrete Grasscrete, 150mm thick for HGV traffic – in situ continuously</td>
<td>£115-£140</td>
</tr>
<tr>
<td>reinforced cellular surfacing; fill with topsoil and peat (S1) and</td>
<td>£115-£140</td>
</tr>
<tr>
<td>fertiliser at 35g/m², seed with dwarf rye grass at 35g/m²</td>
<td>£115-£140</td>
</tr>
<tr>
<td>Precast concrete paving slabs on sub-base, including excavation</td>
<td>£85-£105</td>
</tr>
<tr>
<td>Precast concrete tactile paving slabs on sub-base, including excavation</td>
<td>£150-£190</td>
</tr>
<tr>
<td>York stone slab paving on sub-base, including excavation</td>
<td>£250-£300</td>
</tr>
<tr>
<td>Wall up to 100m²/150m²</td>
<td>£600-£675-£725/£575-£650</td>
</tr>
<tr>
<td>Wall up to 200m²/300m²</td>
<td>£800-£900/£850-£975</td>
</tr>
<tr>
<td>Wall up to 1000m²/1500m²</td>
<td>£1,250-£1,500/£1,000-£1,100</td>
</tr>
</tbody>
</table>

**Drainage**

**Access chambers**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete inspection chamber: concrete base, half section pipework and</td>
<td>£345-£385</td>
</tr>
<tr>
<td>benching</td>
<td></td>
</tr>
<tr>
<td>Precast concrete inspection chamber 600 x 400 x 900mm deep, including</td>
<td>£250-£300</td>
</tr>
<tr>
<td>excavation, half section pipework and benching</td>
<td></td>
</tr>
<tr>
<td>Polycarbonate inspection chamber: mini access chamber</td>
<td>£400-£450</td>
</tr>
<tr>
<td>600mm deep, including excavation, half section pipework and benching</td>
<td></td>
</tr>
<tr>
<td>Polycarbonate inspection chamber</td>
<td>£400-£450</td>
</tr>
</tbody>
</table>

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**Street furniture**

These rates are for standard street furniture – installation/bespoke pieces can be significantly more expensive.

---

**Excavate and lay 100mm diameter clay pipes over 1.0m deep**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavation, half section pipework and benching</td>
<td>£80-£100</td>
</tr>
<tr>
<td>Precast concrete inspection chamber 600 x 400 x 900mm deep, including</td>
<td>£80-£100</td>
</tr>
<tr>
<td>excavation, half section pipework and benching</td>
<td></td>
</tr>
<tr>
<td>Polycarbonate inspection chamber: mini access chamber</td>
<td>£400-£450</td>
</tr>
<tr>
<td>600mm deep, including excavation, half section pipework and benching</td>
<td></td>
</tr>
</tbody>
</table>

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**Living walls**

Living wall design and installation of planted modules with automatic irrigation systems.

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**Fabric based systems; indicative area rates as shown**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wall up to 200m²/300m²</td>
<td>£800-£1,000/£850-£975</td>
</tr>
<tr>
<td>Wall up to 1000m²/1500m²</td>
<td>£1,250-£1,500/£1,000-£1,100</td>
</tr>
</tbody>
</table>

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**The following rates are based on the UK average and represent typical prices at 2022 Q2. Please note that prices can vary significantly depending on the exact specification and preparation requirements.**

---

**There is significant market volatility due to various pressures arising from the Covid-19 pandemic, Brexit and the Russia-Ukraine war. Price rises are being notified for many products.**

---

* T&Cs apply
Corium brick cladding

Architects enjoy using the BBA-certified system because of its design possibilities, consistent performance and sustainability credentials.

Used on buildings in the UK for over 20 years, the Corium brick cladding system is a tried and tested facade system that is perfectly suited for high rise residential projects.

Whether working on a new build or refurbishment scheme, architects, developers and contractors enjoying this BBA-certified system for its design possibilities, consistent performance and sustainability credentials.

Delivering high standards is a commitment shared both by Wienerberger (the manufacturer of Corium) and Taylor Maxwell (its exclusive UK distributor) which have partnered together to supply Corium brick cladding to the UK construction market.

Testing

When working on a high rise project, safety is a fundamental concern. The Corium brick slip system is BBA approved and certified (19/469) with components that are ‘class A1’ as defined by the national Building Regulations.

The BBA certificate relates to the cladding system for use as a protective/ decorative cladding over external masonry, timber or steel frame substrate walls of new and existing domestic and non-domestic buildings, installed either horizontally or vertically, or used overhead to create soffits and ceilings.

The system has been further fire tested and approved in accordance with EN 13501-1:2007 + A1:2009, while also holding CWCT TN76 and BRE wind suction testing certificates.

Performance

A facing brick finish remains ever popular within British architecture, however developments in building techniques are now sitting alongside more traditional construction methods. Brick cladding systems offer architects and contractors increased advantages in design options, speed of construction and cost savings.

When working on a high-rise residential development in a particularly tight or time-sensitive location, Corium’s efficient installation can be the difference in whether you meet your project deadlines. Furthermore, Corium brick cladding is also ideal for offshore modular construction, where facade panels can be prefabricated under quality-controlled factory conditions, delivered to site and installed efficiently without the need for substantial finishing on site.

Corium brick slip cladding panels have a design life in excess of 55 years, in accordance with section 10 of the BBA certificate, and boast no build limit with installations on projects in the UK up to 28 storeys, as per section 6.2 of the BBA certificate.

Sustainability

As the construction industry moves towards a greener future, Corium brick cladding is a sustainable solution that will contribute positively to any BREEAM certification.

The system’s environmental benefits begin with the manufacturing process. Brick slips are typically cut from a fired brick, with the bulk of the brick being left as waste. Corium tiles are instead produced as a finished product, using on average 75 per cent less material than traditional brick. Due to the size of a Corium tile, deliveries to site are also much lighter and therefore, more material can be transported in one journey.

The Magnus tiles that the brick slip tiles clip into do not contain any harmful elements, have a full environmental product declaration (EPD) which is compliant to European standard EN 13546:2015, reduce zinc runoff into soil compared to standard galvanised steel and are 100 per cent recyclable.

There are over 2,500 standard brick tile finishes available within a range of colours and textures. It is also possible to create specific colour blends for individual project design requirements or to meet planning conditions. Corium brick tiles can be used to complement existing brickwork, offering a seamless transition between old and new elevations.

If you’re looking for a larger or longer section of cladding, there are also bespoke protruding headers on offer.

Design

Not only is the Corium brick slip system fully tested, reliable and environmentally friendly, it is also highly sought after for its design potential. As seen on the 2021 Stirling Prize shortlisted project, Cambridge Central Mosque, Corium can be used to create intricate patterns and precise details, allowing a designer the freedom to create a completely bespoke facade for their project.

There are over 2,500 standard brick tile finishes available within a range of colours and textures. It is also possible to create specific colour blends for individual project design requirements or to meet planning conditions. Corium brick tiles can be used to complement existing brickwork, offering a seamless transition between old and new elevations.

To speak to the team at Taylor Maxwell about Corium brick cladding and how we can assist with your project, call 0203 794 9377 or email enquiries@taylor.maxwell.co.uk.
Is there a trade-off between density and safety?

As high-rise residential schemes face increasing safety demands, they may need to become denser with possible implications for amenity.

Words: Josephine Smit

The list of challenges around developing high-rise and high-density homes in urban areas is long and full of complexities, from first concept to planning to construction and on to handover. The bad news is that this list is getting longer as two entirely new product types are introduced to the residential property sector.

The Grenfell Tower fire and the pandemic both prompted rapid responses, the former bringing new safety priorities for high-rise residential buildings and the latter raising questions about urban lifestyles and the value of space, inside and outside the home. Grenfell has already resulted in changes to the design and delivery of residential towers, and both that and the pandemic may have continuing impacts.

The post-Grenfell regulatory landscape for tall residential buildings has seen architects move to non-combustible facade materials, with rainscreen cladding still used, typically with mineral fibre and solid metal panels. One alternative coming under consideration is curtain walling. But Simon Lay, director of fire and risk at GFR Consultants, urges some caution. ‘It is an area that needs to be looked at quite carefully,’ he says, ‘because the guidance around curtain walling is not as well advanced as it is around other walling systems.’

New products, particularly for waterproofing and membranes, have helped resolve key challenges around non-combustibility but, Lay believes, bigger advances in walling systems are some way off. ‘There won’t be massive leaps in technology because the testing and assurance for the non-fire aspects of some materials is a major challenge,’ he says. The return of timber – for structural systems or facade detailing – looks similarly remote. ‘We can crack the safety of timber with more research and I don’t think it’s a product we should give up on,’ he says. ‘But in the short to medium term, a combination of legislation and a nervous insurance industry are near insurmountable obstacles. Tall residential buildings are complex and if you use innovative materials or methods you exponentially increase the complexity, and that means you really can’t be designing with a great reliance on existing statutory guidance.’

That complexity extends to the single staircase. The option for a single staircase remains in recent revisions to statutory guidance and the draft revision of the British Standard, although ongoing government-backed research could change that. But at planning, while some proposals are being approved, others are encountering disagreement from planners, the London Fire Brigade and local campaign groups.

Whether single-stair schemes progress may depend on the level of detail and analyses committed to each individual application, says Lay. ‘If you’re trying a light-touch approach to fire safety of a single-stair, tall residential building at planning stage will rightly risk rejection,’ he adds.

‘Tall buildings are complex and if you use innovative materials or methods you increase the complexity’

Adding a second staircase to a building, however, brings its own challenges, as Lay explains. ‘Once you start going to smaller sites – and these are the sort of sites that typify our congested cities – you end up with smaller footprints and staircases very close together,’ he says. ‘That creates challenges when it comes to things like smoke control. For example, there is the potential to protect one staircase while flooding the other with smoke. Intended consequences can come from adding a second staircase to have to be really thought through. It is not a case of safety being definitively delivered.’

Already, some developers are indicating that sites could become unviable if two staircases becomes the norm. ‘It tends to be developers that have pocket city centre sites that require a more elegant form,’ says Lay. ‘You can’t do that in a commercial way and have more than one staircase, so you would see a significant dip in some areas.’ Instead, he argues, attention should focus on appropriate, protected egress capacity, taking into account the needs of those with mobility impairments, using robust and considered analyses of the escape, and firefighting challenges.

Doubling up

As debate continues, some are already changing course. Rory O’Hagan of Assael Architecture says: ‘As a practice, we are increasingly being asked to incorporate enhanced safety features into our designs, such as a second staircase on tall towers.’ He points out that many global locations, such as New York, already set more stringent requirements. ‘With over 200 consented tall buildings in the London pipeline alone, architects and developers will need to pivot to work within this new framework,’ he says.

Some developers are indicating that sites could become unviable if two staircases becomes the norm

‘As a practice, we believe you should be designing every building with a dual-core strategy and shouldn’t only be relying on counter measures, such as sprinklers and pressurised systems.’ Dual cores feature in schemes like the practice’s upcoming Kingston Gate, in Kingston, south-west London, an 18-storey mixed-use development with 386 build-to-rent homes.

Inevitably, the addition of a second staircase means some loss of units. Cowen estimates that the conventional net-to-gross ratio of around 80 per cent drops closer to 70 per cent. ‘It has cost-and-return implications for developers but we feel we’re better to be ahead of the curve,’ she explains, pointing out that this has been especially relevant for long-term institutional products like build-to-rent. Another factor affecting cost and return is provision of amenity

Opposite: Jo Cowen Architects’ 18-storey Kingston Gate development in Kingston adopts a dual escape core approach. Above: At Kingston Gate, the net to gross ratio in the 386-home development reduce from 80 per cent to 70 per cent.

High-resolution images and contact details refer to the original publication, ‘Products In Practice May/June 2022’.
‘Six or seven storeys feels a comfortable scale to live and allows you to have a relationship with the public realm’

Going lower
High density doesn’t have to mean high rise through, and Cowen also points to locations where her practice is delivering density with two-storey housing, including Edlington, in Cambridge. Here a 25 dwellings per hectare density enabled the scheme to deliver economic, social and environmental benefits, including efficient service runs, ready interaction with neighbours and amenities. ‘Density doesn’t result in a lack of quality,’ says Cowen. ‘The opposite applies, as it gives us more money to spend on the quality of the home and the spaces in between, promoting living landscape-led streets and sustainability.’

Sustainability policies are having their own impact on urban residential development, as Simon Henley of Henley Halebrown points out: ‘A string of requirements in London, including sustainable urban drainage, the Urban Greening Factor tool, and provision for play and amenity space, are making it increasingly difficult to achieve high density with high rise,’ he says. ‘Greater London Authority policies like the Urban Greening Factor may prove to be a crucial tool in managing density.’

Henley sees advantages to medium rise in this context. ‘A good dimension seems to be six or seven storeys,’ he says. ‘It feels a comfortable scale to live and allows you to have a relationship with the public realm of the natural world.’ The practice’s medium-rise additions to the Frampton Park Estate in Hackney are an example, providing 66 mixed-tenure homes for Hackney Council in Taylor Court, Chatto Court and nearby Wilmott Court.

The buildings connect residents to nature and neighbourhood via lobbies, comprising precast-concrete columns and balconies, while Wilmott Court has a secluded, high-level courtyard, marking the entrances to eight houses occupying its two top storeys.

The overall scheme achieves a density of 269 dwellings and, importantly, is a sensitive response to redevelopment of two small sites – formerly occupied by a pub and a small housing block – on the fringe of an existing estate. Government policy has put the focus firmly on delivering quality of homes to satisfy demand, rather than qualities like these. ‘One of the challenges is to find the appropriate level of development because there’s a risk – political aide – that in the process of delivering “units”, you don’t actually deliver good homes,’ Henley says. ‘That is a lesson that has been given added emphasis by events.’

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Former brewery site transformed by regeneration

Schlüter-Systems supplied many of the products used at a magnificent new school of architecture for the University of Wolverhampton.
Surface sensation

Spanish floor tiles are durable, easy to maintain and sustainable, while also being aesthetically pleasing with designs for every architectural need.

High tech

The Spanish tile industry continues to push the boundaries to produce technical porcelains that offer surfaces for the most challenging sites.

After a global pandemic, hygiene is uppermost in every specifier’s mind and so new products are easier to install.

Antibacterial tiles that are both hygienic and stylish. Tiles are particularly effective in wet and high-traffic areas. With anti-slip finishes, ceramic is a safe choice and far from being roughly textured, many R10+ versions feature specially developed finishes that are designed to be soft.

Research and development have significantly broadened the flexibility of Spanish tiles. By creating 3cm thicknesses alongside the usual slim formats, surfaces can segue from indoors to out. As porcelain is frost-resistant, it is ideal for the UK climate. But by making tiles thicker, a special substrate is no longer required, thus pieces are easier to install.

Tiles are particularly effective in wet and high-traffic areas. With anti-slip finishes, ceramic is a safe choice and far from being roughly textured, many R10+ versions feature specially developed finishes that are designed to be soft.

Sustainable solution

Ceramics are highly sustainable, offering a lengthy life cycle. They are durable and resistant to sudden temperature changes, damp, and chemical and biological agents. With their hardness and scratch resistance, porcelain tiles are an ideal choice for public spaces with high-traffic areas, looking pristine for many years to come.

Many products also contain significant recycled content. The Spanish tile industry has worked hard to address ecological concerns, creating Environmental Product Declarations (EPDs) that help the end-user understand each product. Factories are constantly reviewing their production processes and many are working towards a circular economy.

Tile of Spain

Tile of Spain is the voice of the Spanish tile industry, encompassing more than 120 tile manufacturers. Renowned worldwide for an inspiring blend of aesthetic and technical innovation, Spanish tiles draw on a rich heritage of skill and creativity, while remaining at the cutting edge of design.

Manufactured in Spain and widely available in the UK, these products embody the spirit of an industry that prides itself on proposing beautiful, meaningful and high-performance solutions to flooring, wall coverings, furnishing and external paving and cladding.

For further information, visit tileofspain.com

Left Moments by Undefasa: from the Immune series of antibacterial tiles. undefasa.com

Below right Colors by Todagres: technical porcelain available in 19 shades. todagres.com

Below left Next by El Molino: full-coloured body porcelain with antibacterial properties. elmolino.es

Above Onyx by Baldocer: lush marble-effect in four strong colours. baldocer.com

Left Carnaby by Realonda: hexagonal format with antibacterial coating. realonda.com

Below right Colors by Todagres: technical porcelain available in 19 shades. todagres.com

Below left Next by El Molino: full-coloured body porcelain with antibacterial properties. elmolino.es

Created out of fire, clay and water, tiles are a natural material and do not give off harmful emissions. As consumers’ awareness of ecological issues becomes more sharply tuned, traditional ceramics are enjoying a resurgence. Tiles with an artisanal quality allow us to express a closer connection with nature.

Yet many projects require a more high-tech approach. Sophisticated digital printing techniques allow surfaces to replicate the feel of other materials – marble, metal, cement – and still retain all the benefits of ceramics. Particularly impressive are the large-format slabs, offering a sleek and contemporary look that suits expansive spaces. These can be found in sizes up to 100cm by 500cm.

Whatever style of tile, the Spanish tile sector is adept at interpreting the latest trends and quickly bringing new designs to production lines. It can even work directly with architects and designers on bespoke ranges. A distinctive pattern or a custom colour can bring character to a hotel, shop or restaurant. There are also tile ranges to suit different international markets, from luxurious marble effects to minimalist stone.
To say there is a new theatre in Brixton, south London, is perhaps to underplay its qualities. Brixton House, a substantial new building designed by Foster Wilson Size, is rather more: a collection of two performing spaces, seven studios, two floors of creative workspace, an extensive public foyer and a whole basement level of affordable recording studios – the latter still to come.

This means that when it came to designing the floors, it was essential to ensure acoustic separation between this large number of studio spaces.

The theatre is also a very important civic building for Brixton, particularly given the prospect on a nearby site of Adjaye Associates’ high-rise office tower, a highly controversial proposal that many locals fear could fuel a new wave of gentrification if it is given the go-ahead by London mayor Sadiq Khan.

Brixton House promises to be a different kettle of fish altogether. It is the £18 million new home of the long-established Ovalhouse Theatre, which has relocated down the road from Kennington with the help of co-client Lambeth Council. Located on Coldharbour Lane, the new development is not far from the location of a Frank Matcham-designed theatre which was bombed in the Second World War. With the closure of another theatrical venue a few decades later, Brixton has long been without its own theatre.

The new 4,850m² corner building has an assertive presence on the busy street, as perhaps it needs to have in response to the challenging context.

Above Brixton House combines a new home for Ovalhouse Theatre with studios and two storeys of office space.

Left Formerly a car park, the venue is part of the Somerleyton Road Development Project, which includes 300 new homes.

Opposite The staircase is teamed with oak flooring in the upper circulation levels. It transitions to green on the two office floors.
The former surface car park site is close to overground railway lines and London Underground tunnels and is also opposite the powerful barrier block of the Somerleyton Road estate – built in anticipation of a motorway that never came – and is part of an ongoing adjacent major housing development. Another consideration was the neighbouring Carlton Mansions, a rundown building and local landmark due to the Nuclear Dawn mural (1981) on its flanking wall.

Foster Wilson Size opted for a steel-framed building with a robust facade of lightweight anodised aluminium above ground floor level, modulated by vertical black fins that hide programmable LEDs to give a variety of lighting effects. The choice of a moody dark metal cladding followed extensive research around London.

“We wanted a material presence with a bit of weight about it and a sense of atmosphere,” says Foster Wilson Size partner Edmund Wilson, adding that it felt appropriate that a public building should be “a genuine contrast” to the light brick of nearby buildings.

Brixton House joins up with Carlton Mansions at the rear while pulling away from it on Coldharbour Lane to create a public space in front of the restored mural. That building has also been refurbished – by Zac Monro Architects – and incorporated into the Brixton House project, with the new venue managing the revamped workspace.

The architects wanted the building to feel approachable, somewhere that the local community would feel they could spend time in even if they didn’t see a performance. This led to the inclusion of full-height glazing on the ground floor.

“The idea is to have as few barriers as possible between street and theatre. So it’s as if it’s just a piece of street enclosed by glass,” says Wilson.

And thanks to the glazing, there’s certainly no missing the bright pink cantilevered staircase rising up from the foyer. The love-it-or-hate-it pop of colour also draws attention to a second mural, designed by Damilola Odusote. The distinctive touch of pink contrasts with

“We wanted it to be as grounded, accessible and open as possible.”
The architects wanted the building to feel approachable...
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Specified

1 V Collection Herringbone in Cocoa Prime
   Havwoods
   ‘Well, we cancelled our Amazon subscription, finally! Free shipping, gaming deals, Top Gear, and 10 per cent off at Whole Foods! Far from ‘prime! Obviously the site is prime, we’re still buying prime steak, we’ve organised it so all our phones have only prime numbers, and both our mothers are in their fifties, so they’re in their prime – so that only left the floorboards! “They’re engineered American black walnut, and at 120mm by 600mm, they’re totally prime. Boris is drooling by for drinks later, just to have a look. We are not at home to any lesser minister.”

2 Sher-Crete Topscreed range
   Sherwin-Williams
   ‘Ah! Roomba! Lovely! Shame you got rendered non-functional by that dog, but welcome to heaven anyway! Cleaning here is nirvana – it’s these polymer-rich cementitious screeds everywhere. In our VIP area, Saint James of Dyson and His Holiness Henry Hoover are waiting to welcome you with 50mm of Sher-Crete BU topped with resin. And here in the arena, we hold our weekly “suck-in”. This is 5-15mm Sher-Crete SLX as a wearing surface. Get your laughing gear round that.

3 MyFloor Creative Design Service
   Gerflor
   ‘We had that Timothy Leary in. He said his name was Uncle Buck and that he was opening an ice cream parlour. But we knew it was him. “Eh? Well, for a start he’s peddling sweet comestibles. Dead giveaway. Also, just look at it. We did it … whatever the client wants, right? Printed logos, everything. Clients design it online, it’s water-jet cut it in either Taralay Impression or Premium, and bingo! Wear-resistant sheet flooring, completely bespoke.’

4 Allura Flex LVT
   Forbo
   ‘It’s not like the firm’s canteen, Bri! You got to get them in, off the street, and sell ‘em stuff they want to eat! These blighters aren’t captives: they’ll vote with their feet! Muesli pots are all very well but a cheese and ham croissant? Digestive hell. So it’s crucial to up the dwell, Bri, see? Which is why, Bri, we’ve kitted it with Forbo’s tackified planks LVT’s for footfall and dwell, lad, we’ve fitted it - in a day and a half – with Grey Autumn Oak, which doesn’t scan … but you can’t have everything, can you mate?’

forbo.com/flooring/en-uk

flowcrete.eu

Havwoods

Sherwin-Williams

Forbo

Gerflor

Products In Practice May/June 2022

PiP specifieds are compiled from supplied company press releases
Painting woodwork, cabinetry and trims

When painting interior woodwork, the holy grail is a finish that does not compromise on either beauty or practicality. Doors, panelling, trim, kitchen cupboards and wooden furniture are often among the busiest areas of the home and therefore demand a durable finish to withstand higher traffic. But a common side-effect of prioritising functionality is an unintentional detraction from the visual impact of your carefully curated space.

Paint & Paper Library offers a pair of complementary paints in its full range of colours, formulated to bring beauty, depth of colour and interest to your schemes, while remaining robust enough to endure the inevitable knocks and bumps. Architects’ A.S.P. (All Surface Primer) and Architects’ Satinwood can be used in combination – on almost any surface – to achieve a sleek and professional finish.

With the renowned premium quality found in all Paint & Paper Library products, they are both water-based, environmentally friendly, contain minimal VOCs and have very low odours. This means they can be used throughout the home without worry or concern.

Architects’ A.S.P. is an extraordinary, combined primer and undercoat, suitable for virtually any interior or exterior surface: woodwork, metalwork, as well as all building plastics, tiles and even glass. Drying in around two hours, this highly versatile primer has been designed to provide easy application and a long-lasting base for a choice of surface finishes.

Following this, Architects’ Satinwood can be applied for a superior satin finish. Soft to the eye and hard to the touch, Architects’ Satinwood has a sheen of 30-35 per cent, and is specially formulated for use on wooden trims, kitchen cupboards and wooden furniture.

Created to bridge the divide between beauty and practicality, Architects’ Satinwood is fully washable, allowing it to be applied with confidence in all high traffic areas of the home. It’s perfect in kitchens and bathroom environments.

With each finish available in all Paint & Paper Library colours, inspired schemes are incredibly easy to achieve.

Hallways are the perfect place to use these finishes. Paint & Paper Library Head of Design, Andy Greenall says: ‘Hallways are often narrow transient spaces that are the last to be considered when it comes to decorating. However, a hallway is also the first space you see on entering your home, and therefore an important space for setting the tone and creating a welcoming atmosphere.

‘Where space is tight, consider using colour to highlight architectural features, creating new design impact without physically remodelling the space. A confident colour combination that brings warmth to a traditional space is the soft muted peach Desert Rose with the deeper, richer Caddie, with accents in black or an off-black shade such as Aquaviva.

‘The finish you choose for a hallway is as important as the colour – as a high-traffic area, opt for Architects’ Satinwood on trim to ensure any vulnerable surfaces will withstand the knocks and bumps of everyday life.’

A kitchen demands a thoroughly robust paint. This contemporary example (below) creates a calming balance using the same colour, Blue Vein, in two different finishes. Shades of the tranquil Porcelain and Slate colour families are used on the cabinetry, shelving, woodwork and ceiling.

Meanwhile this vibrant bathroom space (pictured left) uses the robust, washable qualities of Architects’ Satinwood. The fresh, yellow-based green Euphorbia brightens panelling while the muted pink Temple is used to refresh wooden furniture. The scheme is grounded with flex on the bath.

Architects’ Satinwood works well on panelling to create slick architectural interest within a space. As personal spaces, bedrooms are a wonderful place to embrace colours you love, says Greenall. ‘Don’t be afraid to develop an intimate scheme that reflects your personal tastes. To create a harmonious and calming atmosphere, use tonal hues together, such as rich Beetlenut combined with soft pink Plaster V and deep, warm red Grenache (pictured below). And don’t flatly assume that the brightest colour needs to be the one used in the smallest proportion!’

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195 Piccadilly is testament to the resilience of the underdog. In 1831, an argument boiled over between the Royal Academy’s oil painters and watercolourists over what constituted a painting, resulting in the latter’s seceding to set up their own institute. Fifty years later, in 1881, the split formalised itself in the creation of the Royal Institute of Painters in Water Colours, a grand free Renaissance style building designed by ER Robson. With busts of its eight founders – JMW Turner among them – set within stone wreaths, it seemed to chest beat proudly, a stone’s throw from Burlington House opposite.

Time however, was not kind to the RIPW. The exhibitions may have continued behind its distinctive upper level, top-lit blind wall, but the institute itself underwent internecine struggles and by 1900, parts of the grand building were being incorporated into the Prince of Wales Hotel behind it. By 1933 an arcade had been run through at the right end of the building and the central entrance had been consigned to a lesser one on the left. In 1956, the lower level became Pan Am’s London offices and, come 1976, the nascent British Academy for Film and Television Arts (Bafta) had moved in, blanking off the galleries’ Victorian rooflights and ramming a raked cinema in the triple-height space beneath it.

These intrusive interventions have been addressed in Benedetti Architects’ reconfiguring and expansion of the building, the result of a Bafta-invited competition to create an interior that better served members needs while helping generate commercial revenue from the highly desirable location.

The architect’s biggest move was in proposing that the hidden rooflights encountered in its site investigations were not only reinstated but moved up 3m in near-entirety so as to insert a new floor beneath them. This not only maintained the current cinema provision but added to it with new lettable areas and a whole floor of restaurant and meeting spaces as well as a formal boardroom.

The practice’s other key interventions included removing a 1930s access stair on the left to create an access lift and wraparound staircase leading off a new entrance area, finally giving the academy a presence at the shop-lined ground level. All these major moves resonated with the client and planners. Renato Benedetti informs me that the practice had planning and listed building consent within two months of its application.

He says the firm chose to draw on the academy’s glamour and the opulence of the area – he cites the mirrored and marbled wonder of subterranean Soho French bistro Zédel and the art deco interiors of Piccadilly Circus station as prime inspirations. And it’s evident the minute you walk into the new ground-floor reception, with slabs of rich, creamy Italian travertine bringing a sense of indulgence to what would otherwise be a constrained entrance area. Rich vertical striations give the Italian travertine a more matt but no less luxurious quality. Elevator doors pick up on the brass theme.

Opposite Though smaller, the deep-red, 41-seat Run Run Shaw theatre is nonetheless fitted out with state-of-the-art tech. Left The fully refurbished, 227-seat Princess Anne Theatre now sits beneath the newly created upper floor level.

Above With art deco references, the suggestion is that the new interventions have always been there.

Left The fully refurbished, 227-seat Princess Anne Theatre now sits beneath the newly created upper floor level.

The architect’s biggest move was raising the hidden rooflights by 3m so as to insert a new floor beneath them.

Benedetti Architects’ reconfiguration of the Piccadilly building is inspired by the glamour of the academy and the opulence of the surrounding area.

Words: San-Carlos Kucharek  Photographs: Luca Piffaretti
Specified

1 Antibacterial waterproof wall panels Fibo

2 Maximus Mega Slab RAK Ceramics

3 Edition Lignatur ‘Wild White Oak’ Keuco & Team 7

4 High-level 814 cistern WC set Thomas Crapper

Charles watched the Trump behind inch ahead of his dear mother, and pondered the golden throne upon which it was known to perch. He thought of Mummy’s far more practical Thomas Crapper. Venerable WC pan and 814 high-level cistern. Each embodied the essence of its user: one an ostentatious public flinger of stinking nuggets; the other a discreet user: one an ostentatious public flinger of stinking nuggets; the other a discreet.

Channel 5 primetime ideas: Tiling Nightmare’. Summary: Slippery cement, matchsticks falling out, matchsticks getting stuck, tiles dropping off, grout going like tramps’ teeth, tiles tinking in the sink. Thoughts? Note: Don’t include these Metro Brick tiles in Ocean Blue, or any of Fibo’s many other new Urban, Signature or Scandivian collection designs, cos they’re actually rather clunky. Next, seven-ply waterproof birch, routed ‘gouge’ lines, antibacterial, invisible click joints! Dead loss for this show. Fibo.co.uk

‘I have a weevey gwifew in Worne called Maximus Mega Slab He is enormous, but remarkably slender in profile. When he is poisoned by enemies, I will swart his effigy in marble ceramic! They will be in three thicknesses, as slim as 9mm. Some Maximus Mega Slabs shall be Minimal Slabs, at a mere 6x120cm – and other Maximus Mega Slabs will be a weakly staggering 120x260cm! I will sweet wadically enormous Mega Slab evocations all over Worne! Feww them to the fowwe? Oh no! We will lay them wevery carefuliy, centoww!’ rakceramics.com/sk/en

‘Well, it could have been worse. We could have been a McDonald’s condiment counter, or hot tub cladding in an Essex back yard!’ ‘I tpose you’re right. But you get to be a double basin! Me? I’m just a box on the Essex back yard!’ ‘Well, it could have been


2. Desso + Ege carpet

3. BWC Fire, Fire engineer, Building control MLM, Planning consultant Sandy Brown, AV consultant Charcoal Blue, Alan Baxter, Sandy Brown, Planning consultant DJM, Building control MLM.

4. BWC Fire, Fire engineer, Building control MLM, Planning consultant Sandy Brown, AV consultant Charcoal Blue, Alan Baxter, Sandy Brown, Planning consultant DJM, Building control MLM.
Protecting biodiversity in the built environment

A report by Wienerberger sets out the challenges faced by the construction industry in meeting the latest biodiversity net gain requirements.

Wienerberger UK and Ireland has launched a new specialist report aimed at architects exploring the role of eco-habitats in the drive for biodiversity net gain across projects.

The Changing Shape of Biodiversity in the Built Environment has been prepared by environmental specialists at Wienerberger, addressing the challenges faced by the construction industry as they seek to meet enhanced biodiversity net gain requirements.

Why is it important?
The 2019 State of Nature Report shows that urban areas in the UK now hold more species than the countryside, due largely to the provision of essential components for biodiversity. But wildlife is in a state of decline across the UK, with 41 per cent of species declining in numbers since 1970.

But numbers have fallen dramatically over the last 50 years, and our most common bat, the common pipistrelle, has declined by almost 70 per cent. House sparrows have declined by around 50 per cent in the same period and are now red-listed as a species of high conservation concern. The number of swifts fell by 53 per cent between 1995 and 2016, and starlings by 66 per cent since the mid-1970s – also red-listed as a bird of high conservation concern.

What else do you need to know?
Biodiversity is no longer a ‘nice to do’. Recent changes in planning frameworks mean biodiversity net gain is now a critical requirement in order to secure planning consent for new developments. Under the NPPF, developers risk not securing planning consent if they do not integrate biodiversity improvements within their design.

What can architects do?
Homebuyers and commercial property tenants have become more aware of both the environment as well as their own wellbeing. Therefore, buildings that support local wildlife to create better outdoor spaces will become more attractive to buyers and users.

By planning for nature, architects can support developers and building users to reconnect with nature. But this relies on making informed, data-driven decisions on projects that are shaped by early communication and collaboration. The most important point is that such measures no longer need to be costly or complex. Architects now have access to a wide range of solutions to help achieve the necessary ecological enhancements and ensure biodiversity net gain. Often these will work together to contribute to the net gain required.

For example, eco-habitats provide a fuss-free and inexpensive option, which can be introduced as supplementary enhancements to provide durable and discreet habitats for endangered wildlife.

What are eco-habitats?
The premise is simple. Integrated wildlife boxes offer durable and discreet habitats for British birds, bats, bees and other species. Ready to be integrated into the fabric of a building as it is built or renovated, they are produced to UK standard brick and roof tile size for ease of installation.

Wienerberger’s range, in partnership with Habitat, is produced in the UK and can be faced in any brick type or stone, regardless of manufacturer, stone finish or suitable render. Roofing eco-habitats are also available. All solutions can be made bespoke to suit individual requirements for each project.

Bird boxes are tailored to individual species such as swifts, starlings and sparrows, providing space for nesting and roosting that is safe from predators. They can usually be constructed from insulating concrete block, which provides an internal roost space, with access holes to suit different species, before being clad with a brick face to match the building fabric.

Bat boxes are solid boxes made of insulating concrete and clad appropriately to provide an internal roost space. Suitable for most species commonly found in the UK, the single-chambered unit features an integrated V system to increase the surface for bats to roost against, while allowing freedom of movement.

Other eco-habitats include solitary bee bricks, produced to UK brick size format so they can be easily installed in place of a standard brick. These feature holes of varying sizes to provide nesting space for different species of solitary bee. Solitary bee boxes are free to install in these cavities before sealing the entrance with mud and chewed-up vegetation. The offspring then emerge in spring and the cycle repeats.

What else do you need to know?
It is important to understand the role eco-habitats can play in supporting biodiversity and the benefits they can bring to the built environment.
Rethinking spaces we live in

PIP webinar panelists discuss the changing demands on housing, from floodproofing and retirement living to the largest Code for Sustainable Homes Level 5-equivalent scheme in the UK. Stephen Cousins reports

The last two years have given us all time to reevaluate the spaces we live in. Stories of families without the space to combine work and home schooling of young architects confined to desks in tiny flat shares revealed the shortcomings of conventional housing design with limited adaptability.

“The skill of a great architect lies in the ability to eke out innovative space from what little they have to play with,” says PIP editor San-Carlos Kuchanski in his opening remarks to a seminar showcasing the latest innovative and sustainable housing and residential development projects. “It requires grit and determination to realize these things out with clients and councils alike, but when it works, it can be quite something.”

Our first speaker, Ed Barley, founder and director of the Environmental Design Studio, provides an insightful overview of retrofitting for flood resilience, which also happens to be the title of his new book published by the RIBA.

According to Barsley, many more communities in the UK will be caught in a perpetual state of flood recovery and reinstatement, so designers need to “think about what we can do to break that cycle and reduce or eliminate the associated waste and disruption for communities.”

Just because a building is exposed to flooding, it does not have to be vulnerable, he adds. A toolbox of strategies to increase flood resilience can include ‘wiring electrics from within the ceiling down and specifying products or materials that are less affected by floodwater, or that could be quickly reinstated.’

Weather resistance is a theme also tackled in presentation by the first sponsor, VMZINC. The manufacturer’s low-sag Zinc product forms the striking dark standing seam roof and upper-floor cladding on Crosby Crosby Architects’ Water End House in the Lake District, that a building rescued from damage due to flooding.

It all comes out in the wash as they say, and Coffey Architects’ Moor’s Nook project in Woking, our next case study, is a literal transformation of a neglected industrial laundry into an award-winning residential community for retirement living.

As project director Steve Jones explains, a series of ingenious interventions helped breathe new life into the typology. A communal lounge, rather than being located at traditional ground floor level, is on the first floor, ‘embedded in the architectural composition’.

All residents benefit from dual-aspect apartments, while top-floor flats extend into the pitched roof space where large skylights boost natural daylight.

Furthermore, the relocation of a substation at one corner of the horseshoe-shaped plan enabled the creation of a public courtyard and colonnade where residents and the general public can sit and meet. A district heating network, photovoltaics, high-daylight levels to all apartments and a net zero future.

“Key to tackling these obstacles, and delivering a very high density of 24 dwellings per hectare, was the introduction of back-to-back courtyard houses at the centre of the site,” says Jones.

Scale and massing were also crucial to retain a sense of space and to allow light to penetrate into homes, achieved by positioning single-storey terraces between properties and providing the twin benefits of dual aspect units and a new type of external space for residents.

Residents have spoken ‘glowing’ about the properties since moving in, says Dickenson, “it gave them a type of house and an experience they never expected to achieve within that budget.”

A warm glow is a feeling we also expect from radiators, but our next presentation, from low-energy underfloor heating supplier Wunda, questions the suitability of such technology in the context of future changes to Part L and a net zero future.

Low carbon aspirations were front and centre during the design of our final case study, the award-winning Eddington key worker housing scheme for staff at the University of Cambridge.

As Kaori Ohsugi, director at Stanton Williams Architects explains, the brief was to create an exemplar for sustainable living and largest single Code for Sustainable Homes Level 5-equivalent development in the country. Key measures to achieve this across the 364 dwellings included high-performance facades, a site-wide district heating network, photovoltaics, high-daylight levels to all apartments and responsibly sourced materials. A focus on long-term adaptability to changing needs saw all properties designed to the Lifetime Homes Standard, with primary structures designed to last 120 years.

Spaces in historic Cambridge colleges also provided the inspiration for the new urban realm, says Ohsugi. “The network of communal spaces of different scales and character, the informal relationships between spaces and the use of transitional spaces found very attractive. We wanted to capture within our design.”

Many more communities in the UK will be caught in a perpetual state of flood recovery and reinstatement. The award-winning Gables housing scheme in Crosby, presented here by Dave Dickenson, director at Liverpool-based DK Architects, comprises five single-family houses for a range of tenures on a highly constrained and overlooked site.

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DANIEL HOPKINSON

Left Moor’s Nook, Woking. Phill Cofey Architects. Award-winning residential assisted living project for Pegasus Life transforms a derelict laundry facility into a new community.


Above The Gables, Crosby, by DK Architects; a 30-home development, where careful repelion of form and diatlow detailing builds a strong identity. Right Eddington in Cambridge. 264 high-performance homes for university staff, with generous public realm.
Keep controlling the carbon

From conversations on embodied carbon, via historic building reappropriation in Belgravia, to one of the world’s tallest timber towers, Stephen Cousins discovers some recent projects paving the way on sustainable design.

At a time of soaring gas prices, renewed dependency on fossil fuels triggered by war in Ukraine and underwhelming commitments by global powers at COP 26, efforts by the UK construction sector to tackle the climate crisis might seem like fiddling at the edges while Rome burns.

“In the face of that helplessness, perhaps the best way forward is to take Mahatma Gandhi’s advice and ‘be the change that you want to see’,” says PiP editor Jan-Carlos Cheshire.

Embodied carbon calculation is a requirement for practices aiming to hit net zero under the RIBA 2030 Climate Challenge. In the next presentation, sustainable insulation manufacturer Extratherm relates its experience of applying the methodology to calculate embodied carbon on four different domestic property types.

Sustainable project ambitions often chime with drivers for cost cutting, as demonstrated by the first case study – Eccleston Yards, a mixed-use scheme comprising five refurbished buildings and a new public courtyard in central London’s Belgravia district.

Rachael Owens, an RIBA Journal Rising Star and head of sustainability at architect Buckley Gray Yeoman, explains: “We wanted to keep as much of the existing as we possibly could, driven by the relatively low budget for the project, which really helped minimise embodied carbon emissions.”

The retention of Victorian stonework, cast and wrought iron structural elements, beams, junction boxes and exposed brick also aligned with a brief to repair the urban fabric and re-establish the character of the area.

Switching settings from busy Belgravia to the calm countryside of Rutland in the East Midlands, Sarah Featherstone, architect and co-director at Featherstone Young, explains why its Stonecrop project embodies a more sustainable approach to housing development in village settings.

Formed from the subdivision of a very large garden, the project shows “how we can create more space for housing in the middle of villages” and so avoid suburban sprawl, she says. A specific energy efficiency strategy saw the dwelling split into two halves – the larger wedge-shaped wing serves as a home for the two clients and is heated using a ground source heat pump augmented by woodburners with back boilers. The second wing remains separate and only kicks into operation when family comes to visit.

An outside courtyard between the two halves introduces a ‘buffer wall with huge thermal mass’, and its sleek design encourages a ‘natural flow of cross ventilation’.

Staying with flows, the water gets very choppy off the coast of Norway where the world’s largest underwater restaurant – Under, designed by Snøhetta – boasts 3D-printed brass taps developed by this webinar’s second sponsor Grohe using 50% less material than the conventional product.

Other forms of sustainable innovation are driving product development at luxury home appliance brand Fisher & Paykel, which, according to the next presentation, makes a refrigerator with the highest possible energy rating for the capacity and a dishwasher that can hold small loads in a separate drawer, saving both power and water.

Speaking of loads, and the ability of engineered timber to support big ones, Robert Schmitz, partner and director of competitions at White Arkitekter, brings the seminar to a close with a fascinating description of Sara Cultural Centre in Skellefteå, Sweden, one of the world’s tallest timber towers at 30 storeys high.

Two different construction systems were developed for the carbon-negative building. A high-rise hotel element is made up of volumetric cross laminated timber modules stacked between two CLT elevator cores. The only concrete is in the foundation and basement level and at the top of the tower to prevent swaying. The connecting low-rise cultural centre is built with glulam timber and CLT cores and shear walls.

Somewhat reassuringly, the team ‘worked hard to ensure the building is not going to burn down,’ says Schmitz. Alongside a full sprinkler system and evacuation stairs, the timber was ‘over-dimensioned to enable surfaces to char without damaging structural performance’, he adds.

The project not only creates a new sustainable landmark for the city, it also reinstates a historic connection with timber for the region, which until recent decades had been the dominant form of construction, as the fabric and services, can make it nearly as efficient in operation as a new build.

“Buildings that have survived the wrecking ball, such as Victorian warehouses and Georgian townhouses, are particularly suitable for adaptation, thanks to features such as rectilinear floor plates, generous floor to ceiling heights and great use of light and space,” says Cheshire.

Embodied carbon calculation is a requirement for practices aiming to hit net zero under the RIBA 2030 Climate Challenge.
NLC-SOL240R-SP brise soleil by NLC The Louvre Works

The south elevation of the new Penderyn Distillery and Visitor Centre in Llandudno is a hybrid design of 200mm thick external high performance insulation and mineral wool insulation. This combination shows no flame propagation or critical temperature rise, and has a B1 (EN 13501-1) in combination with a non-combustible mineral wool insulation. This combination shows no flame propagation or critical temperature rise, and has a B1 (EN 13501-1) fire rating.

Building Simply – A Guideline

This book wears its heart on its sleeve, with the question of how architecture can create pleasant internal environments across its cover. The book is the result of the author’s firm’s engagement with the Technical University of Munich, using the simplest means on three residential projects. There’s a charming simplicity and minimalism to the text, photographs and drawings, bringing a manifesto-like quality to the book that seems inspirational in itself. And with the three studies – infill lightweight concrete, solid timber and thermally insulating masonry – there’s something for everyone. Florian Magner ed. Birkhauser. 123p HB £33

A guide for the architect looking at best-practice approaches for dealing with the spaces between buildings rather than the buildings themselves. With six chapters roughly following the plan of work, this book acts as a well illustrated and sign-posted guide to the design and construction process. Real-life examples are never far away with case studies associated with each chapter. A useful reference for those hoping to ensure that the public space outside a building is not the first casualty of over-engineering. Claire Thirwell. RIBA Publishing. 229p HB £40

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NLC The Louvre Works

The grade II listed former school building’s high window cills were dropped to ground level, opening the assembly hall to the street along the front façade. The interior of the hall contains the body of the distilling equipment laid out to agree with the architectural rhythm of the windows. New windows were fitted within the existing stone mullions and transoms using the REA W40 System by REA Metal Windows Ltd, the fine steel frames sitting elegantly within the existing stonework. LH Stainless provided the Mash tun, still and distilling equipment, elegantly within the existing stonework. Mash tun, still and distilling equipment by LH Stainless

From Idea to Site: A project guide to creating better landscapes.

A hybrid design of 200mm thick external high performance insulation and mineral wool insulation. This combination shows no flame propagation or critical temperature rise, and has a B1 (EN 13501-1) fire rating.

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