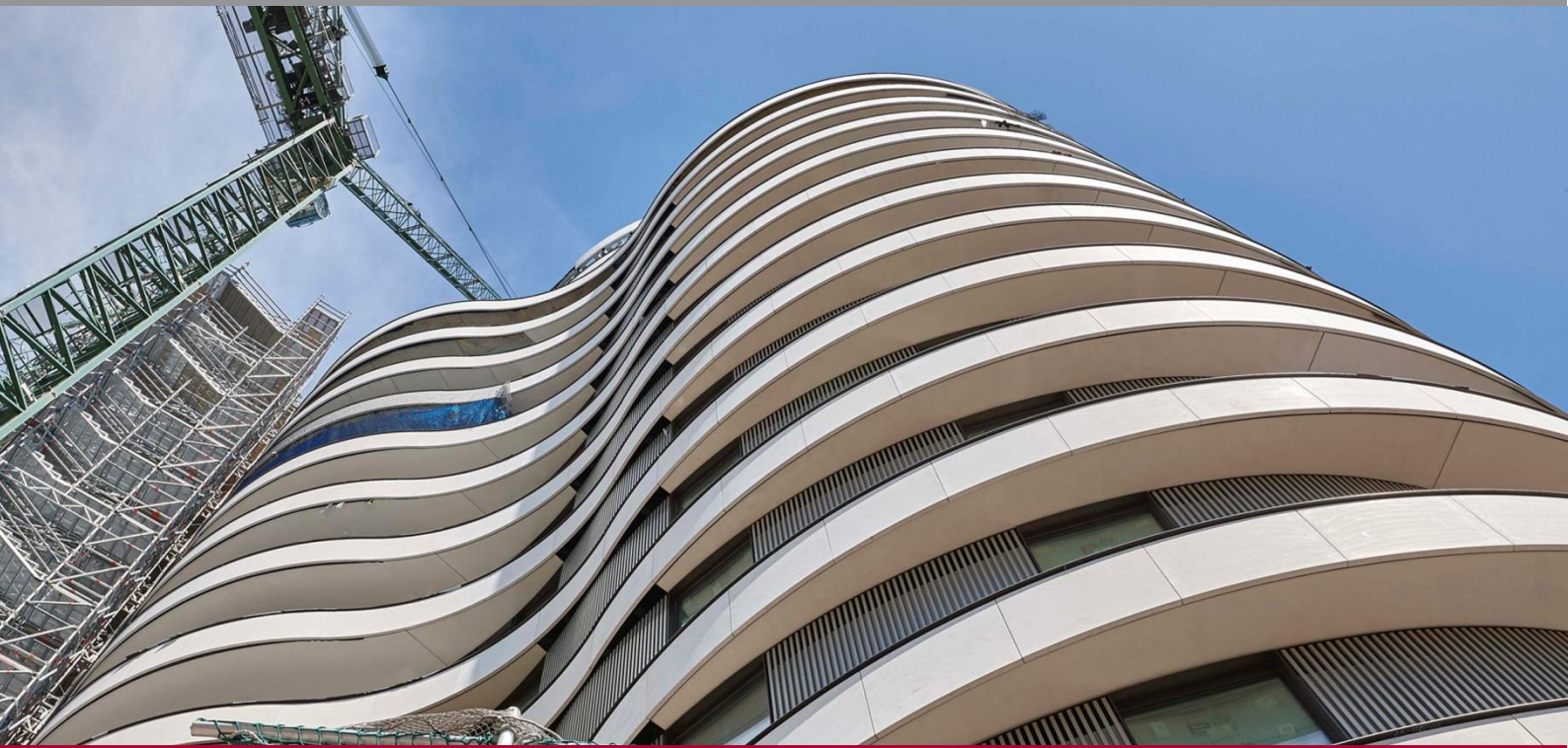


CASE STUDY

Balcony Waterproofing – Why use a liquid?



SIG Design Technology's Hydrostop AH-25 liquid system was chosen as the waterproofing for 170 crescent-shaped balconies at RiverWalk on the River Thames at Pimlico.

Rising up from its Thames-side site at Pimlico at the meeting of Millbank and Vauxhall Bridge, RiverWalk is an elegant new development of 116 high specification apartments.

The flowing form of the buildings is picked out in limestone and bronze cladding, forming 'strata' which curve in and out to form balconies and terraces, tied into a whole by the careful use of materials and exquisite detailing. Towards the top of the buildings, the floors step back to create larger roof terraces, but overall the scheme has 170 crescent-shaped balconies, all of which need to be carefully waterproofed.

Specialist roofing contractor Knight Asphalte Co Ltd carried out this task, using Hydrostop AH-25, an alpha-hybrid liquid waterproofing product supplied by SIG Design & Technology. After waterproofing, the balconies will be fitted with hardwood decking to provide a luxurious outside space for each of the apartments.

Why use a liquid for balcony waterproofing?

The balconies at RiverWalk provided a unique challenge to the contractors. Each one is a different crescent shape, but all have tight tapers at the edges to ensure the continuity of flow of the sinuous limestone cladding externally.

The balconies themselves are a combination of in-situ concrete casting and prefabricated steel end sections; each individually made in Italy and shipped to the site via the port of Rye.

Adding to the physical constraints of each balcony shape was the fact that the building was to be built without external scaffolding, so the waterproofing contractor would have to work in a very tight space. The high quality cladding in bronze and stone and the glazed balcony doors would all need careful handling and Knight Asphalte would have to work closely with the cladding installers to meet their programme requirements.

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A sheet membrane solution would have been excessively complicated, whereas a liquid becomes homogenous. The AH 25 waterproofing would be hidden behind the cladding; so roofing contractors, Knight Asphalte had to be confident in its performance.

Knight Asphalte discussed the options for the balcony waterproofing with architects Stanton Williams, main contractors Sir Robert McAlpine and roofing specialists SIG Design & Technology. Cold applied liquid waterproofing was selected as the ideal approach as it solved a number of problems.

With many cleats and bolts to each balcony, a sheet membrane solution would have been excessively complicated to install, whereas a liquid becomes homogenous. The contractors would not be able to revisit the waterproofing after installation as it would be hidden behind the cladding and fixing process, so they had to be confident in its performance.

Using a liquid, the prefabricated steel ends could be waterproofed prior to installation on the balconies, after which the remaining areas could be waterproofed. A cold applied product would avoid issues with fire risk and spillage associated with hot systems, particularly in such confined spaces.

Why use AH-25 for balcony waterproofing?

David Knight, technical director at Knight Asphalte explained why the team chose to use Hydrostop AH-25 liquid waterproofing for the balconies at RiverWalk. “We looked at half a dozen liquid products,” he said, “and we are very impressed with the technical performance of

AH-25. It was definitely the best fit to the project constraints. The product had just received its Agreement Certificate, which was essential for the contract.

“Many liquid products have a pungent smell but AH-25 doesn’t smell at all. When we looked at the product we were really impressed with its performance. It’s new generation technology and it actually works.” Would using a relatively new product not cause him some concern? Generally it would, but we’ve had a good relationship with SIG Design & Technology for many years. They are part of SIG Plc, a big respectable outfit, a FTSE 250 company.”

Knight was also very complimentary about his experience after the decision to specify AH-25. “We had to think a little bit about how to detail some of the shapes, but the SIG team provided design and technical advice, and technical inspections on site. They also trained our staff in the new product at their site in Shepshed and at our offices in Kent. All our orders turned up when required, but of course that’s to be expected with SIG’s distribution background.”

Advice to specifiers on balcony waterproofing

David Knight is very pleased with the installation of Hydrostop AH-25 liquid waterproofing. On a complicated, challenging project, the liquid seems to have been the best solution.

He said. “We needed to co-ordinate with the other trades and the installation has gone very well. On a project with 170 curved balconies there wasn’t really a better system to use. With several areas like small balconies, particularly with hidden sections and complicated detailing, this is the ideal job for the product,” says Knight.

SIG Design & Technology has put together an 8-step guide to identify the challenges and ensure that a roof’s design meets a building’s requirements. Called “#Perfect Roof”, the eight steps follow the process from product selection and design expertise through to full guarantees and planned maintenance. This know-how is just part of the service that is provided free to customers.

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Balcony Waterproofing – Why use a liquid?



The SIG team provided design and technical advice plus inspections on site. They also trained Knight's staff on how to install AH25 correctly.

Quality of installation by Knight Asphalte

Quality of installation is the essential 'third element' and of our roofing design, specification and supply service. Monitored installation is the sixth step of the #Perfect Roof" process.

Knight Asphalte is a member of SIG's Design and Technology Accredited Contractor scheme (DATAC) which ensures that designers, clients and main contractors deal with financially credible, trained specialist roofing contractors who have an on-going relationship with the products they work with and are supported on site to deliver high quality projects.

With a 30-year track record, Knight Asphalte can offer developers, architects, local authorities and consultants a complete flat roofing solution to meet their requirements.

To find out more about AH-25 call SIG Design & Technology on 01509 505 714 or visit <http://www.singleply.co.uk/flat-roofs/hydrostop-eu-ah-25/>.

