

Case study



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For immediate release

Schöck and Marble Mosaic broaden their Horizons

In the mid-19th century, part of a proposal to develop housing in the Yabsley Street area of Blackwall was withdrawn, after the West India Dock Company insisted that 'only superior houses should be erected there, as the site interferes with the prospect from the Dock Superintendent's House'. The best part of two hundred years later, the 'prospect' has certainly changed dramatically in Yabsley Street, with the arrival of Horizons. Two luxury residential developments housed in connected blocks – a dominant 26-storey tower and a 7-storey building. Horizons is one of the most recent additions to the skyline on the north bank of the Thames opposite the O2 and offers 190 private apartments with one, two and three-bedrooms; plus six penthouses with stunning views from their substantial private terraces.

Located close to the bend in the Thames adjacent to Canary Wharf, one of the architectural challenges was to maximise the spectacular panorama and at the same time conserve the local heritage around nearby Poplar Dock. The tower building called for a high level of aesthetic design quality in all aspects to justify the proposal. More pragmatically, the considerable number of balconies involved throughout the development also demanded the minimisation of any possible structural or thermal bridging problems. The Schöck Isokorb structural thermal break comfortably met the specification and as the project involved precast balconies, specialists Marble Mosaic had a big part to play as well.

Challenges posed by over 300 precast balconies

The Marble Mosaic Company specialise in the provision of high quality precast concrete cladding panels and structural units for new buildings. Their joint MD Dennis Vittle takes up the Horizons story. "We have been associated with Schock on various projects for quite a number of years now and this particular project required the balcony units to be not only integral with the main structure, but also insulated and fire-stopped from it. The Schock Isokorb type K was the natural solution. There was a requirement for 345 individual pre-cast balconies throughout the two blocks and the project posed a number of new challenges to MMC's and the Schöck design team. As well as standard insulated balcony to slab connections there were also a number of downstand and upstand connections required. Also the precast columns were supported off the balcony slab at one end only, so there was a heavy eccentric shear load transfer. The agreed design called for the use of a combination of Schock Isokorb types K and Q to ensure structural integrity with the frame, whilst avoiding any clashes with the concrete frame reinforcement".

The Schöck Isokorb type K is a load-bearing thermal insulation element for concrete-to-concrete cantilever balconies and transfers bending moment, stress and shear forces. With its HTE pressure-bearing module, the element provides the best thermal performance achievable with thermal breaks today. It also transfers load and maintains full structural integrity, while at the same time enabling inner surface area temperatures to remain well in excess of those likely to cause mould formation and condensation. The Schöck Isokorb type Q serves as a shear force transfer element for loggia's or column supported balconies with relatively low load expectations.

Verifiable performance standards

The diverse range of Schöck Isokorb load-bearing thermal insulation solutions guarantees totally verifiable performance standards, meets full compliance with the relevant UK building regulations and offers BBA Certification and LABC Registration. In addition to providing highly effective connectivity solutions for concrete-to-concrete thermal bridging situations, the Schöck Isokorb range also

offers products for concrete-to-steel and steel-to-steel applications. There is even a maintenance free alternative to wrapped parapets. When any Isokorb product type is incorporated into residential buildings, the required fRsi value – the temperature factor used to indicate condensation risk that must be equal to or greater than 0.75 – is always comfortably met.

The range also complies with the Government Standard Assessment Procedure, SAP 2012, concerning CO2 emissions from buildings and respectively heat losses through non-repeating thermal bridges. The lambda values of the Isokorb enable energy losses to be reduced by as much as 84% to 91% in various connective situations.

For a free copy of the Schöck Thermal Bridging Guide and / or the Thermal Bridging Solutions brochure – contact the company on 01865 290 890 or visit www.schoeck.co.uk

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Notes to the editor

A leading European supplier

Schöck has grown to become Europe's leading supplier of innovative structural load bearing insulation products. The main product is the Schöck Isokorb – a thermal break for various types of cantilever constructions in new buildings and for renovation. Its headquarters are at Baden-Baden in southern Germany and there are subsidiary companies in Great Britain, France, Austria, Switzerland, Italy the Netherlands, Belgium, Poland, Hungary, Russia, Japan, Canada and the USA. Sales teams and partners operate in many other European countries and also Australia and South Korea. Schöck is committed to providing the highest level of technical back up and comprehensive customer service to the construction industry.

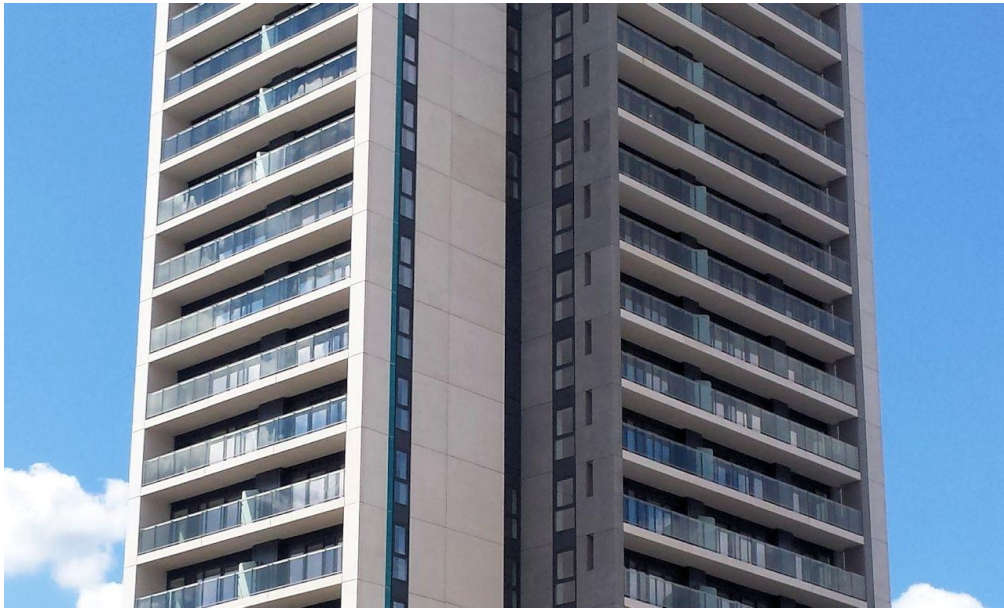
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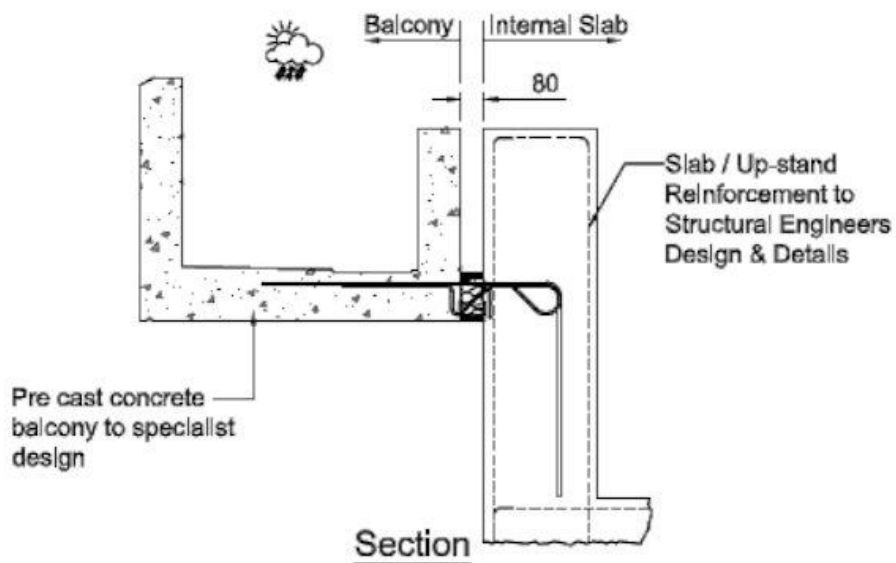
The precast balconies being incorporated into the frame's construction, with the precast cladding panels following below. Image: Marble Mosaic.



Horizons sits alongside Poplar Dock Marina. Image: Schöck Ltd.



Two sides of the tower. Image: Schöck Ltd.



Sectional drawing of the balcony connection. Image: Schöck Ltd.