

CASE STUDY

Armourplan the natural choice at Bournemouth Oceanarium



The £1.5m extension at Bournemouth Oceanarium was five years in the planning and has increased the size of the aquarium by one third.

Project: Bournemouth Oceanarium

Architect: [RLM Architects](#)

Main contractors: [Brymor Construction](#)

Roofing contractors: [Excel Roofing](#)

Waterproofing membrane: IKO Armourplan SG

Conservation is at the heart of a £1.5million extension to Bournemouth Oceanarium. The new Penguin Beach Encounter forms the centrepiece of the extension, a two storey building housing the latest Oceanarium residents, ten Humboldt Penguins which are considered to be a very vulnerable species. Their brand new custom-built exhibit was specifically

designed to replicate the birds' natural habitat with a deep pool, beach, rockery and nesting boxes.

IKO Polymeric, SIG Design & Technology, and Excel Roofing Services have collaborated to design, supply and install 250m² of single ply roofing for the new kiosk, glass covered beach walkways and stores.

Five years in the planning, this custom-built exhibit is the biggest building project at the attraction since it opened in 1998 and has increased the size of the aquarium by one third.

"The new roof's aesthetics had to look good from all angles as the Oceanarium sits on the beachfront and is also visible from the Promenade above so both mid

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grey and slate grey membranes were used; mid where it could be seen from above and slate grey where it could be seen from below,” explains Andy Coles, IKO Polymeric’s senior field engineer. “Our Armourplan PVC single ply membrane is UK manufactured in a wide selection of colours so it was a clear contender for the project which needed to complement the existing building’s roof.”

IKO polymer was also used for interfacing to existing GRP and to bond to the steel frame. Slate Grey and Mid Grey were chosen to blend with the existing GRP edge trims, curved metal drips and upstands to the edge of the warm roof section. The warm roof waterproofs the kiosk and walkways and the cold roof covers the stores area.

IKO Polymeric and Excel Roofing’s expertise also helped solve the problem of how to secure the netting to the seafront tourist attraction. Netting also had to be put over the roof to stop the penguins from escaping, this was held down with eyelets onto the membrane and then weathered so substantial detailing had to be taken into consideration. As the original specification to be attached with eye bolts proved impractical, the netting was fastened by welding on membrane straps.

Excel Roofing has been an installer of Armourplan single ply for over 10 years and is a member of SIG’s Design & Technology Contractor (DATAC) scheme. Their involvement helped overcome problems on a challenging roof where the mesh was falling lower than required in places.

IKO Polymeric’s advice was also sought on the weather detailing of the exposed metal frame. IKO polymer was recommended, and was used to seal existing GRP trims and the weather-exposed steel frame which supports the netting.



The new Penguin Beach Encounter houses ten Humboldt Penguins which are considered to be a vulnerable species

Deliveries by supply partner SIG Design & Technology had to be carefully timed as the Promenade was open to the public throughout, and access to the site was carefully controlled to ensure safety.

More information

- Visit the Armourplan product pages: <http://www.singleply.co.uk/flat-roofs/iko-armourplan-pvc/>
- Learn more about the 8 steps to the #PerfectRoof: <http://www.singleply.co.uk/perfectroof/>
- To find out more about Armourplan call SIG Design & Technology on 01509 505714 or visit www.singleply.co.uk