

Hepworth Gallery



Celotex helps create the Hepworth work of art

For the largest purpose built exhibition space outside of London and one that is literally built into a river, the stunning new gallery, The Hepworth Wakefield, is quite simply, a work of art. With its prominent site at the head of the fast flowing River Calder, this modern building pushes the tolerances of architectural design.

Designed by award winning architect David Chipperfield and built by main contractor Laing O'Rourke, the 5,000m² gallery will play a vital role in the redevelopment of the Wakefield Waterfront. The gallery walls float 30 millimetres above the floor, so hidden supports had to be constructed to support the magnesite floor. For a project where it was essential to protect the structure from the elements particularly the cold river water and fluctuating water levels, 2,300m² of 75mm thick Celotex GA4000 was installed as lining for the concrete walls and 1,800m² of 50mm thick Celotex FF4000 as high performance thermal insulation for the underfloor heating system.

Made from PIR (polyisocyanurate) with foil facers for improved emissivity, Celotex GA4000 and FF4000 both achieve an excellent lambda of 0.022W/mK, a figure validated by the BBA (British Board of Agrément). Helping the project meet the desired U-values whilst meeting strict levels of energy efficiency, Celotex GA4000 has been independently assessed by BRE Global and confirmed as achieving a low environmental impact, through its BRE Approved Environmental Profile and has been awarded an A+ rating when compared to the BRE Green Guide.

In a building with such high tolerances, heat loss would be high without a thermally efficient solution. So when it came to floor insulation, 50mm thick Celotex FF4000 was laid on the structural base then covered in poured concrete. Designed for use in internal underfloor heating applications, Celotex FF4000 is available in a broad range of thicknesses from 50mm – 125mm and in a board size of 1200mm x 2400mm. The 75mm thick Celotex GA4000 was used in the cavity walls of the steel framed building – fitted between the external concrete walls and internal block walls. These durable and extremely lightweight boards, available in a range of thicknesses from 50mm to 100mm and a standard board size of 1200mm x 2400mm, are easy to cut to fit using hand tools making them ideal for a speedy application.

Now complete, Celotex has played a crucial role in such a unique building. The bold lines and modern architecture of the striking new Hepworth Gallery will undoubtedly be a fitting home for an outstanding collection of British art and will include original sculptures by the gallery's namesake, Barbara Hepworth, who was born in Wakefield and went on to become one of the greatest sculptors of the 20th century.

FF4000 Product Overview

- Specialist PIR solution purposely designed for underfloor heating systems
- Minimal downward heat loss into the structure
- Easy-to-cut boards to fit in most spaces
- Pipe retaining clips may be inserted directly into the Celotex insulation
- Provides reliable long-term energy savings for building structures



For more information visit celotex.co.uk