

News from Kingspan

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KINGSPAN KOOLTHERM FOR WORLD'S TALLEST MODERN TIMBER RESIDENCE

A nine storey residential building in Hackney, said to be the world's tallest modern timber residence, is the latest prestige project to benefit from premium performance insulation from Kingspan.

The £3 million Stadthaus apartment block on Murray Grove, Hackney, designed by Waugh Thistleton Architects, uses a cross-laminated wood-panelling system from KLH UK for its entire load-bearing structure – an approach so unique that this uncharted engineering territory is being added to the UK Building Regulations in annex form.

Sustainability was at the heart of the brief for the 29-unit apartment block. Developed by house builder Telford Homes plc and including homes for Metropolitan Housing Trust, the unique structure is a response to London's 10% carbon emissions reduction target. Contributing to the achievement of this target is Kingspan Kooltherm K15 Rainscreen Board, which was installed beneath the cladding to insulate the building's walls.

Kingspan Kooltherm K15 is unaffected by air infiltration, resistant to water penetration, and also achieves an A+ Summary 2008 Green Guide Rating. Kooltherm's very low thermal conductivity allowed the Stadthaus to use a mere 70mm and still achieve a U-value of 0.27 W/m²K.

Importantly for a timber building, the boards also meet the requirements of the relevant fire regulations and are rated with negligible smoke obscuration. They are Class 0 to the Building Regulations (Low Risk for Technical Standards in Scotland) and meet the criteria within BR 135 for fire performance of wall insulation on multi-storey buildings.

Kingspan Insulation supports its products with its highly rated Technical Service Department, something that proved useful for KLH UK at Murray Grove, when it provided KLH with a second opinion, following questions regarding interstitial condensation risk at Stadthaus.

Craig Liddell explained: "We asked Kingspan to carry out a separate, Condensation Risk Analysis for the wall build-up. The Stadthaus was a large-scale, very high-profile project for us and we wanted to provide the assurance of industry support to our own calculations. Kingspan's input went some way to providing peace of mind, given the company's esteem in the marketplace."

Tony Millichap, Technical Manager for Kingspan Insulation added "A timber panel such as the KLH system has benefits in that it does provide additional thermal resistance when compared with other structural inner leaf options such as masonry, which helps with optimising energy efficiency of the building. But having higher thermal resistance for the inner portion of the wall construction can have implications with regards to the potential for interstitial condensation. These issues can be easily avoided by the adoption of appropriate specification and thickness of insulation on the external of the panel, and we were happy to be able to resolve questions and provide verification of thermal performance through the condensation risk assessment we undertook."

Kingspan Kooltherm K15 Rainscreen Board is a premium performance insulation board designed for use behind rainscreen cladding systems and is lightweight and easy to handle and install. It is unaffected by air infiltration; and composite foil facings on both sides of the board act as a barrier to moisture penetration, adding to the board's durability. When correctly applied, Kingspan Kooltherm K15 Rainscreen Board has an indefinite lifespan.

Kingspan Insulation offers an extensive range of insulation solutions for both new build and refurbishment projects. Specifiers, stockists and contractors are supported with a comprehensive and free technical advisory service.

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Notes to Editors

A member of the fast-growing Kingspan Group plc, Kingspan Insulation produces the widest range of insulants available from any UK or Irish manufacturer. They are the market leader in the manufacture of rigid phenolic and rigid urethane insulation, and offer products for use in the industrial, commercial and housing sectors.

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Kingspan's Kooltherm K15 Rainscreen insulation board was used for the £3 million Stadthaus apartment block on Murray Grove, Hackney.