MATLOCK ROAD – DERBYSHIRE

Membranes For A Fabric-First Envelope

Project: Matlock Road

Location: Wessington, Derbyshire

Company: Glidevale Protect

Sector: Private Housing

Technology: Timber Frame

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The Matlock Road development in Wessington, Derbyshire, is an exclusive private housing development consisting of nine individually designed four-bedroom family homes. Developed by Oakworth Construction for AG Properties (UK) Ltd, the homes were built using offsite-manufactured, pre-insulated timber frame panels to improve construction quality, energy performance and sustainability.

STA member Glidevale Protect supplied a coordinated range of construction and roofing membranes that form part of the timber frame building envelope. Protect TF200 Thermo reflective breather membrane was integrated into Oakworth Timber Engineering's Varytherm timber frame system to improve thermal performance, while Protect TF200 was installed to the spandrel panels to provide weather protection during construction and reduce the risk of interstitial condensation. Protect VP200 vapour-permeable roofing underlay was also specified across all roof structures to help manage roof space condensation in accordance with BS 5250.

The project follows a fabric-first approach, with the timber frame system designed to achieve high levels of thermal efficiency. The combination of the reflective wall membrane and insulated timber frame construction helped deliver an average through-wall U-value of 0.16 W/m²K. Together with air source heat pumps, the homes are designed to exceed the requirements of Parts F, G, L and O of the Building Regulations and are expected to achieve carbon emissions at least 35% lower than the notional regulatory standard.

Projects such as the Matlock Road development demonstrate how timber frame construction can be enhanced through the specification of high-performance building envelope products. By combining offsite timber manufacturing with carefully selected membranes and a fabric-first design approach, timber frame developments can deliver improved thermal performance, greater energy efficiency and lower operational carbon for new homes.