

Rhenofol PVC membrane is proven for green roofing



Project Name: Fielding Meadow homes & rural employment centres
Location: Ratby, Leicestershire
Product: Rhenofol
Roofing Contractor: Modern Roofs of Leicester

Unlike many other PVC membranes, FDT's PVC single ply roofing membrane enjoys more than three decades of green roofing credentials across Europe, and performance is guaranteed.

Cawrey Homes have been dedicated to building in the village of Ratby Leicestershire for over 40 years. The most recent development comprises three rural employment centres and 36 homes. The scheme brings together traditional building skills and high environmental performance targets, meeting Code 4 for Sustainable Homes. Thirty homes are 'spec-build' for market sale and a further six are built as affordable homes and offered for occupation through a housing association. Other elements of the environmental mix include maximising solar gain; air source heat pumps, biomass heating and an SIG-supplied photovoltaic system.

To date, Modern Roofs of Leicester has installed green roofs to two of the three rural employment centre roofs (each 400 m²) and 11 of the 36 homes (each 120m²).

Rural employment buildings comprising a total of 1092 m²

Within the employment centres are nine office units measuring between 77 m² and 167 m², making them ideal for SME businesses to expand into as they grow. Roof build up is of warm roof construction and comprises FDT's PVC single ply roofing membrane, Rhenofol CGV to field areas of roof with Rhenofol CG to details & upstands with 120mm PUR insulation board by Recticel. There are laminated metal trims and gutter detailing. A sedum blanket with stainless steel gravel guards and pebble margins offers a further touch of sustainability.

New Build Homes

Demonstrating sustainable criteria, Rhenofol CGV was specified to roof field areas of the new homes, while Rhenofol CG was specified for details & upstands of a highly insulated, ventilated cold roof system. There are also laminated metal trims and gutter detailing. Kay-Metzeler's Kay-cel super plus Insulation (250 mm grey polystyrene slabs) has been laid between rafters.

Maintenance and guarantees

All properties are covered by SIG plc's 20-year membrane guarantee. The sedum roofs to houses will be maintained by Cawrey for the first three years; maintenance will subsequently be handed to each building owner.

Modern Roofs was selected as roofing contractor based on many years of working with Cawrey. A local contractor, they have a broad skill set across roofing disciplines and are highly experienced in green roofing installations. Contracts have been completed on time and to budget.

Installation has provided a number of challenges to the installers, who were trained at SIG Design & Technology's national training centre at Shepshed, Leicestershire. The roofs feature many external and internal corners. South facing PV panels are attached to 35° pitched fins, waterproofed with Rhenofol. To cool the homes in the summer, north facing windows in the fins provide passive ventilation.

As a recognised quality test on this type of roof system, each membrane roof has been electronically tested for faults prior to receiving the sedum blankets. It is not unusual to find minor defects as part of this process but the independent tester commented that test results confirmed workmanship of a very high standard.

Other challenges include the great British weather, especially given the very exposed nature of this site close to a conservation area.

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