

CASE STUDY

ELE HOUSE UNIVERSITY, HERTFORDSHIRE

Old Students' Union receives fire protected roof



As part of the refurbishment programme, the existing roof on Ele House University was ponding and in great need of repair. The roof is mostly flat but has four large pitched roof areas and two smaller pyramidal roof areas housing water tanks.

IKO PLC were contacted by M&J Flat Roofing Ltd to refine the roof specification and incorporate a tapered insulation scheme to the flat areas to improve drainage, and achieve Part L 2006 compliance for the whole roof.

IKO's Ultra prevENT T-O Brown capsheet was specified for the 300m² flat roof areas, and Armourglass Dual Brown Roofing Shingles were specified for the 200m² pitched roofs. The roofing shingles were chosen to maintain the original slate effect on the pitched roof areas. The work also involved re-lining of existing steel gutters and improving the thermal performance of the whole roof.

Ultra prevENT features pioneering graphite firewall technology within its layers to provide superior protection against fire spread from outside of the building. The polyester base fabric of Ultra prevENT is coated with expandable graphite crystals during manufacture. The graphite works as a flame retardant as it undergoes an endothermic reaction, drawing heat from the combustion process. In the event of a fire, external to the

Project Sector: Education

System: Built-up Felt Roofing

Products Used: Superbar FireBLOC T-O VCL, Enertherm PIR Alu, Superbase SA Ultra prevENT Membranes Armourglass Roofing Shingles

Contractor: M&J Flat Roofing Ltd

Started: March 2009

Completed: June 2009

Contact: Andrew Moore

roof, the graphite swells, creating a 'crust' after expansion. This crust forms a barrier against the heat and prevents the fire from penetrating. The 'graphite shield' also acts as a smoke suppressant and halts the dripping of molten bitumen from the underside of the membrane.

Ultra prevENT membranes are tested to the highest British & European fire standards and carry LPCB approval. The range includes pour & roll, torch-on, mechanically fixed and the new cold applied, self-adhesive SafeStick prevENT system.

The University building is still being used by the Student Union as both offices and recreation facilities.

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