



CASE STUDY – Insulation for a Period Roof

BUFCA SUPPLIER: BASF Polyurethanes U.K. Ltd
BUFCA INSTALLER: R & S Insulation Ltd

THE SITUATION

The owner of a Grade II listed Old Manse building required a practical way to improve the insulation of the extensive roof area. The Manse has recently been extended and the roof of the main building was replaced at the same time as the extension (consisting of a round tower structure). When the new roof was installed, conventional insulation was fitted between the rafters but this did not solve the condensation problem.



SOLUTION

Walltite spray foam insulation was directly applied to the timber sarking boards to provide insulation and an immediate reduction in the recurrent condensation problem. There should be a noticeable improvement in the internal temperature of the house. The owner had previously used Walltite to solve a similar condensation problem in a workshop with a corrugated sheet metal roof. As the product cured the problem in this challenging situation, it was a natural step for him to specify Walltite for his home.

Situated in the Scottish Borders, the roof is exposed to external temperatures that can reach lows of minus 20°C. The condensation problem was caused when moisture froze on the underside of the sarking. The effect of this freezing was to draw more moisture through the tiles. As the frozen surface thawed, moisture dripped down onto the insulation, and ultimately the ceilings, below. The application of Walltite cured the condensation problem by eliminating cold surfaces: all the surfaces are now at a temperature above the dew point.

The house is an old structure with irregular surfaces and a unique shape. The Walltite spray-applied product was ideal as it moulds itself to the contours of the building and can be used on any substrate material. The depth of foam applied can be increased to further improve the thermal insulation. In this instance, 50mm of Walltite was applied to the entire roof, some 120 sq m.