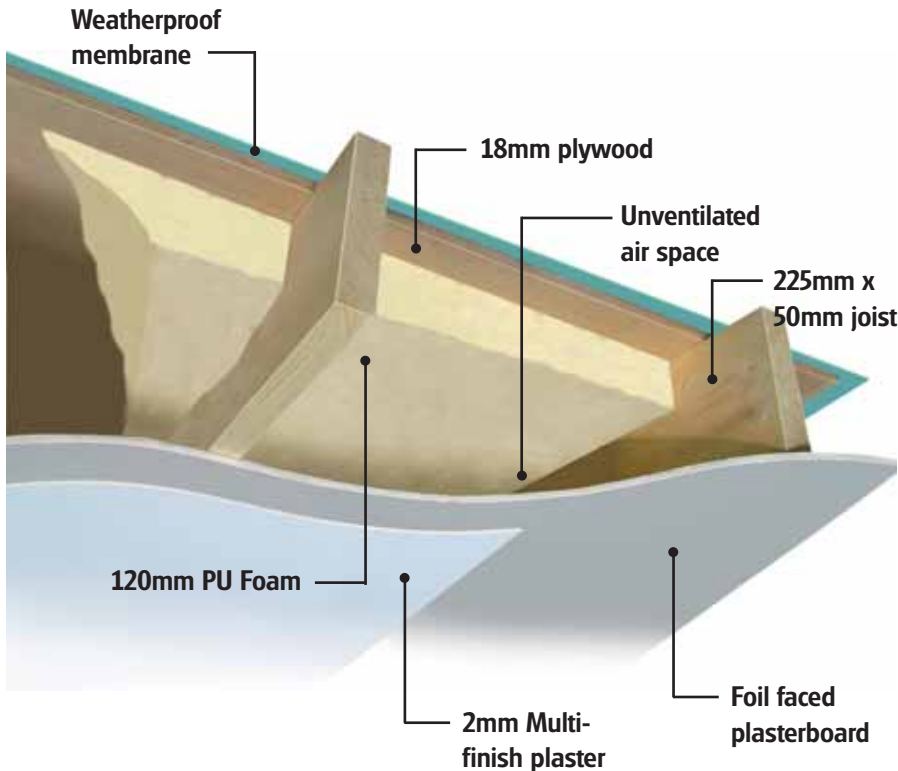


New flat roof



General

Specification: BBA Certificate 02/3964
Spray applied Renotherm polyurethane foam between joists, directly onto OSB ply.
Average depth: 120mm 150mm
U-value: 0.19W/m²K 0.16W/m²K
Condensation risk: Zero
Ventilation: Unventilated warm deck
Additional insulation: Foil-faced plasterboard at ceiling level

Renotherm is applied directly to the underside of the timber decking to create a warm deck composite roof structure without the need for a ventilation gap to remove condensation. It is essential that elements are designed and constructed to incorporate normal precautions against moisture ingress before the application of the product. When installed in a floor, wall or ceiling, the product will be contained by the floor finish or lining board until these layers are destroyed. Therefore the product will not contribute to the development stages of a fire or present a smoke or toxic hazard. When installed between the joists and lined with a minimum of 12.5mm thick Type 5 plasterboard, a period of fire resistance, from inside to out, in excess of 30 minutes will be achieved. Renotherm is hypoallergenic and contains no fibres, dust or noxious vapours. The sound attenuation properties of the structure are improved.

U-value and Condensation Risk Analyses

Construction details Pitched roof, ceiling at rafter line	Thickness (mm)
Alwitra Evalon	2.2
Smartply 3 OSB	18.0
Renotherm Spray Applied PU Foam	120.0
Cavity >=25mm, roof (CIBS)	-
Vapourcheck Wallboard	12.5
Thistle Finish Plaster (Multi Board)	2.0
U-value - 0.19W/m²K	

Dew point prediction

