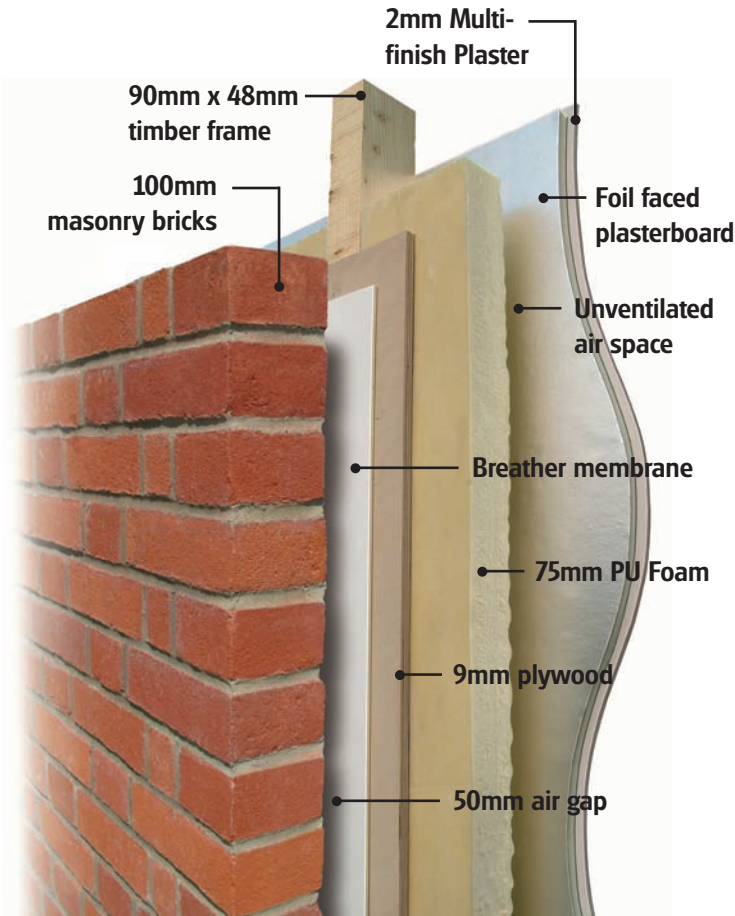


Timber frame walls



General

Spray applied polyurethane foam between timber studs, directly onto OSB ply.

- Average depth: 75mm 110mm
- U-value: 0.27W/m²K 0.20W/m²K
- Condensation risk: Zero
- Ventilation: Unventilated warm deck
- Additional insulation: Foil-faced plasterboard at ceiling level

PU foam is applied directly to the 90mm or 140mm studs onto the OSB plywood. The 90mm stud is sufficient to meet the usual thermal standards. Air leakage is minimised and sound attenuation improved. Polyurethane foams are hypoallergenic; contain no fibres or dust and no noxious vapours. Mechanical and electrical services can be fixed between the foam and the plasterboard. PU foam is very quick to install and minimises on overhead costs and site waste. Foil-faced plasterboards give better thermal performance and water vapour resistance.

U-value and Condensation Risk Analyses

Construction details Timber Frame Wall	Thickness (mm)
Brick - outer leaf	103.0
Airspace in cavity wall construction	-
Smartply 3 OSB	9.0
Spray Applied PU Foam	75.0
Cavity >=25mm, wall	-
Vapourcheck Wallboard	12.5
Thistle Finish Plaster (Multi Board)	2.0
U-value - 0.27W/m²K	

