JETFLOOR - THERMAL PERFORMANCE

Technical Datasheet

V2 05/24

'U' VALUES W/M² K

The measure of heat-loss through the fabric of a building is expressed as 'U' value with limiting set out in the building regulations. However, to fully comply with the building regulations, the dwelling primary energy rate, target emission rate and target fabric energy efficiency rate must not exceed the target primary energy rate, target emission rate and target fabric energy efficiency rate, respectively, when calculated in SAP.

To achieve this, lower 'U' values may be required. Jetfloor provides a range of 'U' values options that will help improve the overall the targets.

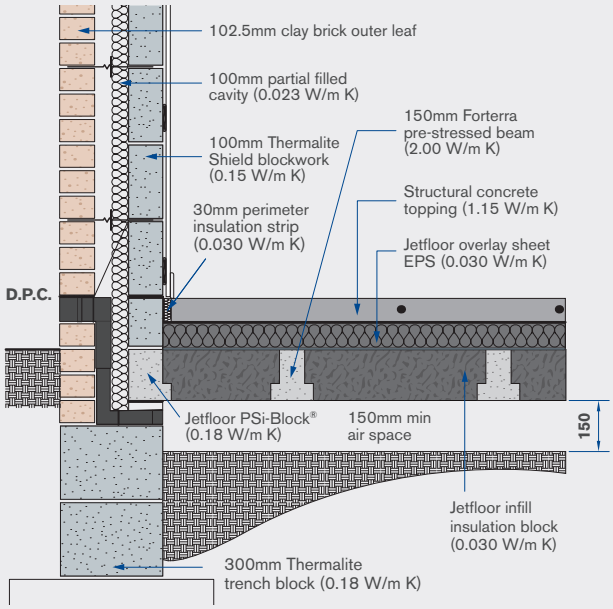
This table demonstrates this range based on specific Perimeter/Area Ratios and insulation material lambda values.

'U' value W/m² K				
	White EPS		Grey EPS	
P/A	80mm	150mm	80mm	150mm
0.2	0.134	0.106	0.124	0.096
0.3	0.146	0.113	0.134	0.102
0.4	0.154	0.118	0.140	0.106
0.5	0.159	0.120	0.144	0.108
0.6	0.162	0.123	0.147	0.110

Note: 'U' values are based on NJB1 beam centres. Actual house-type values will vary dependent on floor layout.

('PSI') VALUES (W/M K) AND 'Y' VALUES (W/M² K)

Heat is also lost through thermal bridges or junctions in a building and is expressed as 'Y' value. Its units of measure are the same as the 'U' value W/m²K. To calculate the 'Y' value the length of the thermal bridge must be multiplied by the Psi value of the junction of the building being considered i.e. the wall to floor junction.



The Psi value is the measure of the thermal transmittance at the thermal bridge and is calculated using thermal modelling, its unit of measure is W/mK.

Jetfloor incorporating the 'Psi-Block®' has resulted in significantly improved Psi values as shown on the table below.

Floor detail	Psi value (W/m K)
Jetfloor	0.03 to 0.10 (1)
SAP conventions document default	0.32 (2)

(1) Values based on wall U-value of 0.28 W/m² K floor U-value of 0.15 W/m² K.

(2) From SAP table K1.

Bison Precast Hoveringham, Nottingham NG14 7JX
tel: 01636 832000 **email:** concrete@bison.co.uk

forterra.co.uk