

For either 150 or 200mm concrete core

THERMAL PERFORMANCE OF POLYSTEEL ICF WALL AS CALCULATED BY BUILDING RESEARCH ESTABLISHMENT

THE FOLLOWING FINISHES WERE INCLUDED:

- 15MM SAND/CEMENT RENDER EXTERNALLY
- 150 CONCRETE CORE WITH 65MM EPS EACH SIDE (POLYSTEEL FORM)
- 12.5MM PLASTERBOARD FIXED INTERNALLY TO EPS.

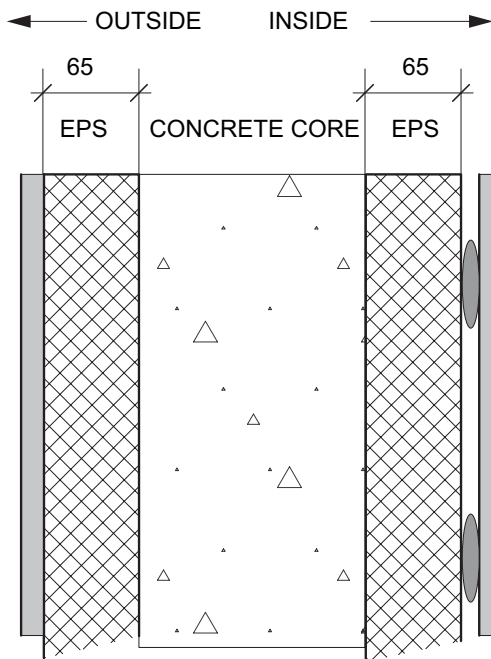
'U' VALUE = 0.31 W/sqmK

Note: The effect of the metal furring strips and ties have been allowed for.

FIRE RESISTANCE 4HOURS

Note:

For convenience, when considering other 'U' Value calculations, based on varying finishes, the Polysteel ICF including concrete and taking the affects of metal ties and furring strips of the product, can be said to have a thermal resistance of 2.98sqmK/M



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'U' VALUE CALCULATION FOR 150MM (CONCRETE CORE) WALL WITH 15MM SAND / CEMENT RENDER EXTERNALLY AND FOIL BACKED PLASTERBOARD ON DABS INTERNALLY

LAYER	THICKNESS	LAMBDA VALUE	RESISTANCE	DESCRIPTION
			0.130	INTERNAL SURFACE RESISTANCE
1	12.5MM	0.250	0.050	FOIL BACKED PLASTERBOARD ON DABS
2			0.18	AIR CAVITY BETWEEN EPS & PLASTERBOARD
2	280MM	0.094	2.98	POLYSTEEL FORM FILLED WITH CONCRETE
3	15MM	0.570	0.0263	SAND / CEMENT RENDER
			0.040	EXTERNAL SURFACE RESISTANCE

TOTAL RES. 3.4063
THEREFORE 1/3.4063 GIVES A 'U' VALUE = 0.294 W/sqmK

FIRE RESISTANCE 4HOURS

NOTE: ALTHOUGH IT MAY NOT BE NECESSARY FOR REINFORCEMENT TO BE INCORPORATED FOR STRUCTURES UP TO THREE STOREYS IN HEIGHT, STRUCTURES UP TO FOUR STOREYS AND INDIVIDUAL SITE CONDITIONS MAY DICTATE OTHERWISE & THEREFORE AN ENGINEER / ARCHITECT SHOULD BE CONSULTED IN THESE CIRCUMSTANCES. ALL DETAILS ARE TO CONSTRUCTED IN ACCORDANCE WITH CURRENT BUILDING CODES AND REGULATIONS. POLYSTEEL UK RESERVES THE RIGHT TO CHANGE INFORMATION SHOWN WITHOUT NOTICE



INSULATING CONCRETE FORMS

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'U' Value calculation of ICF (65mm eps panels) with render externally & plasterboard internally

SCALE: 1:5	APPROVED BY:	DRAWN BY: CSW
DATE: FEB 2007		REVISED: 05.02.07

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DRWG. No.

08/DET01