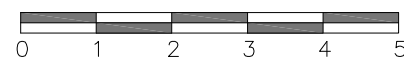


SECTION

SECTION



URBAN REGEN LONDON Ltd.



U-value calculation: ventilated between and under rafters

Construction	100mm deep rafters Thickness (mm)	125mm deep rafters Thickness (mm)	150mm deep rafters Thickness (mm)	175mm deep rafters Thickness (mm)
Outside surface resistance	-	-	-	-
Tiling including batten space	-	-	-	-
Sarking felt	-	-	-	-
Ventilated cavity	50	50	50	55
Celotex between rafters @ 400 ctrs (11.7% brg)	GA4050	GA4075	GA4100	XR4120
Variable layer (for below rafters)	See below	See below	See below	See below
Inside surface resistance	-	-	-	-
Variable Layer	Thickness (mm)	U-value (W/m²K)	U-value (W/m²K)	U-value (W/m²K)
Celotex PL4000	65 + 12.5	0.20	0.17	0.15
Celotex PL4000	60 + 12.5	-	0.18	0.16
Celotex PL4000	55 + 12.5	-	0.19	0.16
Celotex PL4000	50 + 12.5	-	0.20	0.17
Celotex PL4000	45 + 12.5	-	-	0.18
Celotex PL4000	40 + 12.5	-	-	0.19
Celotex PL4000	25 + 12.5	-	-	0.19

Installation guidelines

Installation guidelines: ventilated

- ▶ Make sure there is enough rafter depth to accommodate not only the thickness of the Celotex insulation but also a 50mm ventilated airspace above the boards.
- ▶ Fix battens to the inside face of the rafter so that the bottom of the batten is 50mm below the sarking felt.

Installation guidelines: unventilated

- ▶ For optimum thermal performance, the unprinted foil surface should face the air cavity.
- ▶ Install the breather membrane over the rafters. Fix battens to the side of the rafters to allow the membrane to sag between the rafters. Alternatively, fix counter battens over the membrane, leaving the entire rafter depth to be filled with insulation. All details are to be in accordance with the membrane manufacturer's recommendations.

Installation guidelines: ventilated & unventilated

- ▶ Measure the space to be filled between the inside face of the rafter prior to cutting the board.
- ▶ Use the Celotex insulation Saw to cut the boards at a slight angle, making the board width slightly oversized on one surface to achieve a 'friction fit'.
- ▶ Push the boards into the void between the rafters until they are tight up to the battens or the membrane, ensuring that lateral joints are closely butted. Secure PL4000 with suitable mechanical fixings. Fixing details should be in accordance with the fixing manufacturer's instructions.
- ▶ Joints between boards must be tightly butted, taped and jointed using appropriate tape and jointing material to create the vapour control layer.



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TITLE	EXISTING CONSENTED DRAWINGS	RESS	FLAT 21, HAMPSTEAD GATES, 38 RYLANDS ROAD, LONDON. NW5
CLIENT	F. PHILLIPS	SCALE	1:100 @ A3
		DRAWING NO.	140223/07
		DATE	FEB 2014
		REV.	

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