

## MASONRY CAVITY SUBSTITUTION CHART



By using DriTherm® Cavity Slab 32 in a full fill masonry cavity, you will have the following benefits:

- Non-combustible A1 Euroclass Reaction to Fire classification
- ECOSE® Technology, our unique bio-based binder
- Moisture resistant for use in all exposure zones
- Faster and more cost effective to install than rigid foam boards
- No requirement for retaining discs.

BLOCK TYPE	INSULATION	U - VALUE REQUIRED (W/m²K)							
		0.28	0.25	0.23	0.22	0.21	0.20	0.19	0.18
		<b>Thickness (mm)</b>							
Lightweight Aircrete	<b>DriTherm® Cavity Slab 32</b>	<b>75*</b>	<b>100</b>	<b>100</b>	<b>125</b>	<b>125</b>	<b>125</b>	<b>150</b>	<b>150</b>
	PIR 0.021λ	50	50	50	75	75	75	75	75
	PIR 0.022λ	50	50	75	75	75	75	75	85
Standard Aircrete	<b>DriTherm® Cavity Slab 32</b>	<b>85*</b>	<b>100</b>	<b>125</b>	<b>125</b>	<b>125</b>	<b>125</b>	<b>150</b>	<b>150</b>
	PIR 0.021λ	50	50	75	75	75	75	75	85
	PIR 0.022λ	50	50	75	75	75	75	85	85
Ultra Lightweight Aggregate	<b>DriTherm® Cavity Slab 32</b>	<b>85*</b>	<b>100</b>	<b>125</b>	<b>125</b>	<b>125</b>	<b>150</b>	<b>150</b>	<b>150</b>
	PIR 0.021λ	50	75	75	75	75	75	85	85
	PIR 0.022λ	50	75	75	75	75	75	85	85
Lightweight Aggregate	<b>DriTherm® Cavity Slab 32</b>	<b>100</b>	<b>125</b>	<b>125</b>	<b>125</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>150</b>
	PIR 0.021λ	50	75	75	75	75	75	85	85
	PIR 0.022λ	50	75	75	75	75	85	85	100
Medium Dense	<b>DriTherm® Cavity Slab 32</b>	<b>100</b>	<b>125</b>	<b>125</b>	<b>125</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>160**</b>
	PIR 0.021λ	50	75	75	75	75	85	85	100
	PIR 0.022λ	50	75	75	75	75	85	85	100
Dense	<b>DriTherm® Cavity Slab 32</b>	<b>100</b>	<b>125</b>	<b>125</b>	<b>125</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>160**</b>
	PIR 0.021λ	50	75	75	75	75	85	85	100
	PIR 0.022λ	50	75	75	75	75	85	100	100

\* The stated U-value can be achieved with this thickness in a smaller cavity than necessary for the PIR Solution. Either reduce the cavity width to the DriTherm® Cavity Slab 32 thickness or use 100mm DriTherm® Cavity Slab 32.

\*\* 85mm+75mm required to achieve thickness

Full fill thickness is greater than the required partial fill cavity for PIR consider widening the cavity or call **Knauf Insulation Technical Support Team for Advice on 01744 766666 or email technical.uk@knaufinsulation.com**

**Calculation method:** The U-values have been calculated assuming that all walls are lined with 12.50mm standard plasterboard on dabs on standard blocks with 10mm mortar joints. Wall ties assumed to be stainless steel at 2.5 per m² with a cross-sectional area of no more than 12.5mm² for structural cavities up to 100mm wide and no more than 24mm² for cavities over 100mm wide. Emissivity of foil facing for partial fill solutions assumed to be 0.05 and airspace resistance calculated accordingly.

See overleaf for block types and PIR brands

## Block types and PIR brands

LIGHTWEIGHT AIRCRETE		≤0.11 W/mK
Manufacturer	Block	Compressive Strength (N/mm <sup>2</sup> )
Forterra (Hanson)	Thermalite Turbo	2.9
H+H (Celcon)	Solar Grade	2.9
Tarmac	Toplite GTI	2.9
Tarmac	Durox Supabloc	3.6
Thomas Armstrong	Airtec XL	2.9
Thomas Armstrong	Airtec Standard	3.6

  

STANDARD AIRCRETE		≤0.16 W/mK
Forterra (Hanson)	Thermalite Shield	3.6
H+H (Celcon)	Standard Grade	3.6
Quinn Lite	Super Blocks	2.9
Tarmac	Toplite Standard	3.6

  

ULTRA LIGHTWEIGHT AGGREGATE AND HIGH STRENGTH AIRCRETE		≤0.24 W/mK
Forterra (Hanson)	Thermalite HiStrength 7	7.3
Forterra (Hanson)	Thermalite Hi Strength 10	9
H+H (Celcon)	High Strength	7.3
H+H (Celcon)	Super Strength	8.7
Interfuse	Optilyte	3.6
Interfuse	Interyte Ultra	3.6
Plasmor	Fibolite	3.6
Quinn Lite	Standard Blocks	5.2
Quinn Lite	Seven Blocks	7.5
Skene	GlenSupaLite	7.3
Tarmac	Toplite 7	7.3
Tarmac	Durox Supabloc 4	4.2
Tarmac	Durox Supabloc 7	7.3
Tarmac	Durox Supabloc 8	8.7
Thomas Armstrong	Airtec Seven	7.3

  

LIGHTWEIGHT AGGREGATE		≤0.36 W/mK
Besblock	Pumice	7.0
Broome Bros	Extralite	3.6
CCP	Modulite Plus	4.2
Interfuse	Interlyte Ultra	7.3
Lignacite	Fibo 850	3.6
Masterblock	Masterlite Ultra	3.6
Mona Precast	FiboTherm	3.6
Plasmor	Aglite Ultima	7.3
Plasmor	Aglite Ultima	10.4
Plasmor	Fibolite	7.3
Sellite	Ultralightweight	3.6
Sellite	Ultralightweight	7.3
Stowell	FiboTherm	3.6
Tarmac	Hemelite Ultralite	3.6
Thomas Armstrong	Ultralite	7.3
WD Lewis	Pumice	3.6

  

MEDIUM DENSE		≤0.51 W/mK
Besblock	Insulite	7
Broome Bros	Donlite 3.6	3.6
Broome Bros	Donlite 7.3	0.14
CCP	Modulite	7
Cemex	1400 Readyblock	7.3
Cemex	1100 Readyblock	3.6
Forterra (Hanson)	Fenlite	10.4
Forterra (Hanson)	Fenlite 1500	10.4
Glendenning	SC Solid Lightweight	7.3
Interfuse	Interlyte	2.9
Interfuse	Interlyte	3.6
Interfuse	Interlyte	7.3
Laird Bros	Pummalite	7.3
Lignacite	Houseblock 1100	3.6
Lignacite	Ashlite	10.4
Mona Precast	Monalight 100s	7.6
Newlay	Newlite	7.3
Plasmor	Stranlite	7.3
Plasmor	Stranlite	10.4
Sellite	Thermal	10.4
Skene	GlenEcoLite	10.4
Skene	GlenTherm	10.4
Tarmac	Hemelite Std	3.6
Tarmac	Hemelite Std	7.3
Tarmac	Hemelite Std	10.4
Thakenham	Teklite	7.3
Thomas Armstrong	Insulite	7.3
WD Lewis	Medium Dense 3.6	3.6
WD Lewis	Medium Dense 7.3	7.3
WD Lewis	Medium Dense 10.3	10.3

  

DENSE		≤1.13 W/mK
Besblock	Bescrete	21
CCP	Consolite	21
Glendenning	SC Solid	10.4
Hillhouse Quarry group	Carrickcrete 7.3	7.3
Hillhouse Quarry group	Carrickcrete 10.4	10.4
Laird Bros	Lunacrete	22.5
Lignacite	Lignacite Medium GP /SP	10.4
Lignacite	Lignacite Medium Standard	10.4
Masterblock	Masterlite Pro	10.4
Masterblock	Masterdenz	22.5
Newlay	Newcon	22.5
Patterson Quarries Ltd	Standard Dense 7.3	7.3
Patterson Quarries Ltd	Standard Dense 10.4	10.4
Patterson Quarries Ltd	Lightweight	7.3
S Morris	Dense Solid	22.5
S Morris	Med Dense Solid	7.3
Sellite	Standard Concrete	10.4
Stowell	Stowlite	7.3
Thomas Armstrong	Dense Solid	10.4
WD Lewis	Dense Aggregate	10.4

PIR Thermal Conductivity	PIR Brand				
0.022 W/mK	Celotex CW4000	Kingspan TW50	Xtratherm XT CW	Ecotherm Eco Cavity	Quintherm QW-Cavity Wall
0.021 W/mK	Celotex CW5000	Xtratherm XT CWP			