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# Masonry Cavity Substitution Chart



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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)									
		0.25		0.24		0.23		0.22		0.21	
		Product thickness (mm)	Cavity thickness (mm)	Product thickness (mm)	Cavity thickness (mm)	Product thickness (mm)	Cavity thickness (mm)	Product thickness (mm)	Cavity thickness (mm)	Product thickness (mm)	Cavity thickness (mm)
Lightweight Aircrete	PIR 0.021λ*	65	75	65	75	65	75	65	75	65	75
	PIR 0.022λ**	50	100	50	100	60	110	60	110	75	125
	<b>DriTherm® Cavity Slab 32</b>	<b>100</b>		<b>100</b>		<b>100</b>		<b>125</b>		<b>125</b>	
Standard Aircrete	PIR 0.021λ*	65	75	65	75	65	75	65	75	90	100
	PIR 0.022λ**	50	100	60	110	60	110	60	110	75	125
	<b>DriTherm® Cavity Slab 32</b>	<b>100</b>		<b>100</b>		<b>125</b>		<b>125</b>		<b>125</b>	
High Strength Aggregate	PIR 0.021λ*	65	75	65	75	65	75	90	100	90	100
	PIR 0.022λ**	60	110	60	110	60	110	75	125	75	125
	<b>DriTherm® Cavity Slab 32</b>	<b>100</b>		<b>125</b>		<b>125</b>		<b>125</b>		<b>125</b>	
Lightweight Aggregate	PIR 0.021λ*	65	75	65	75	65	75	90	100	90	100
	PIR 0.022λ**	60	110	60	110	75	125	75	125	75	125
	<b>DriTherm® Cavity Slab 32</b>	<b>100</b>		<b>125</b>		<b>125</b>		<b>125</b>		<b>125</b>	
Medium Dense	PIR 0.021λ*	65	75	65	75	90	100	90	100	90	100
	PIR 0.022λ**	60	110	60	110	75	125	75	125	75	125
	<b>DriTherm® Cavity Slab 32</b>	<b>125</b>		<b>125</b>		<b>125</b>		<b>125</b>		<b>150</b>	

\* Full-fill PIR Solution \*\* Partial-fill PIR Solution.  
If building with PIR, remember to include cavity barriers around all windows and doors.

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Block type	Insulation	U-value required (W/m²K)									
		0.20		0.19		0.18		0.17		0.16	
		Product thickness (mm)	Cavity thickness (mm)	Product thickness (mm)	Cavity thickness (mm)	Product thickness (mm)	Cavity thickness (mm)	Product thickness (mm)	Cavity thickness (mm)	Product thickness (mm)	Cavity thickness (mm)
Lightweight Aircrete	PIR 0.021λ*	90	100	90	100	90	100	90	100	115	125
	PIR 0.022λ**	75	125	75	125	85	135	85	135	100	150
	<b>DriTherm® Cavity Slab 32</b>	<b>125</b>		<b>150</b>		<b>150</b>		<b>150</b>		<b>175 (100+75)</b>	
Standard Aircrete	PIR 0.021λ*	90	100	90	100	90	100	115	125	115	125
	PIR 0.022λ**	75	125	75	125	85	135	100	150	100	150
	<b>DriTherm® Cavity Slab 32</b>	<b>125</b>		<b>150</b>		<b>150</b>		<b>150</b>		<b>175 (100+75)</b>	
High Strength Aggregate	PIR 0.021λ*	90	100	90	100	90	100	115	125	115	125
	PIR 0.022λ**	75	125	85	135	85	135	100	150	100	150
	<b>DriTherm® Cavity Slab 32</b>	<b>150</b>		<b>150</b>		<b>150</b>		<b>175 (100+75)</b>		<b>175 (100+75)</b>	
Lightweight Aggregate	PIR 0.021λ*	90	100	90	100	90	100	115	125	115	125
	PIR 0.022λ**	75	125	85	135	100	150	100	150	115 (65 + 50)	165
	<b>DriTherm® Cavity Slab 32</b>	<b>150</b>		<b>150</b>		<b>150</b>		<b>175 (100+75)</b>		<b>200 (2x100)</b>	
Medium Dense	PIR 0.021λ*	90	100	90	100	115	125	115	125	115	125
	PIR 0.022λ**	85	135	85	135	100	150	100	150	115 (65 + 50)	165
	<b>DriTherm® Cavity Slab 32</b>	<b>150</b>		<b>150</b>		<b>175 (100+75)</b>		<b>175 (100+75)</b>		<b>200 (2x100)</b>	

\* Full-fill PIR Solution \*\* Partial-fill PIR Solution.  
If building with PIR, remember to include cavity barriers around all windows and doors.

Extensions in England

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	Thermalite Turbo	2.9
H+H (Celcon)	Solar Grade	2.9
Tarmac	Toplite GTI 2.9	2.9
Tarmac	Durox Supabloc	3.6
Thomas Armstrong	Airtec XL	2.9
Thomas Armstrong	Airtec Standard	3.6
Tarmac	Toplite Standard	3.6

If your block type varies please contact our Technical Services Team

STANDARD AIRCRETE		≤0.15 W/mK
Manufacturer	Block	Compressive Strength (N/mm <sup>2</sup> )
Forterra	Thermalite Shield	3.6
H+H (Celcon)	Standard Grade	3.6
Mannok	Super Blocks	2.9

If your block type varies please contact our Technical Services Team

HIGH STRENGTH AIRCRETE		≤0.19 W/mK
Manufacturer	Block	Compressive Strength (N/mm <sup>2</sup> )
Forterra	Thermalite Hi Strength	7.3
H+H (Celcon)	High Strength	7.3
H+H (Celcon)	Super Strength	8.7
Mannok	Standard Blocks	5.2
Mannok	Seven Blocks	7.5
Tarmac	Toplite 7	7.3
Tarmac	Durox Supabloc 4	4.2
Tarmac	Durox Supabloc 7	7.3
Tarmac	Durox Supabloc 8	8.7

If your block type varies please contact our Technical Services Team

LIGHTWEIGHT AGGREGATE		≤0.28 W/mK
Manufacturer	Block	Compressive Strength (N/mm <sup>2</sup> )
Interfuse	Interlyte Ultra	7.3
Lignacite	Fibo 850	3.6
Masterblock	Masterlite Ultra	3.6
Mona Precast	Fibotherm	3.6
Plasmor	Fibolite	7.3
Tarmac	Hemelite Ultralite	3.6
Cemex	1400 Readyblock	7.3
Cemex	1100 Readyblock	3.6
Plasmor	Stranlite	7.3
Plasmor	Stranlite	10.4

If your block type varies please contact our Technical Services Team

MEDIUM DENSE		≤0.45 W/mK
Manufacturer	Block	Compressive Strength (N/mm <sup>2</sup> )
Besblock	Insulite	7
Broome Bros	Donlite 3.6	3.6
Broome Bros	Donlite 7.3	7.3
Forterra	Fenlite	10.4
Thomas Armstrong	Insulite	7.3
Stowell	Stowlite	7.3

If your block type varies please contact our Technical Services Team

DENSE		≤1.13 W/mK
Manufacturer	Block	Compressive Strength (N/mm <sup>2</sup> )
CCP	Consolite	7.3
Hillhouse Quarry group	Carrickcrete 7.3	7.3
Hillhouse Quarry group	Carrickcrete 10.4	7.3
Laird Bros	Lunacrete	7.3
Masterblock	Masterdenz	7.3
Newlay	Newcon	7.3
Quarries Ltd	Standard Dense 7.3	7.3
Quarries Ltd	Lightweight	7.3
S Morris	Dense Solid	7.3
S Morris	Med Dense Solid	7.3
Sellite	Standard Concrete	7.3
Thomas Armstrong	Solid Dense	7.3
WD Lewis	Dense Aggregate	7.3

If your block type varies please contact our Technical Services Team

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