EXPOL

Guaranteed Performance

SOLID INSULATION AND LIGHTWEIGHT POLYSTYRENE CONSTRUCTION SOLUTIONS

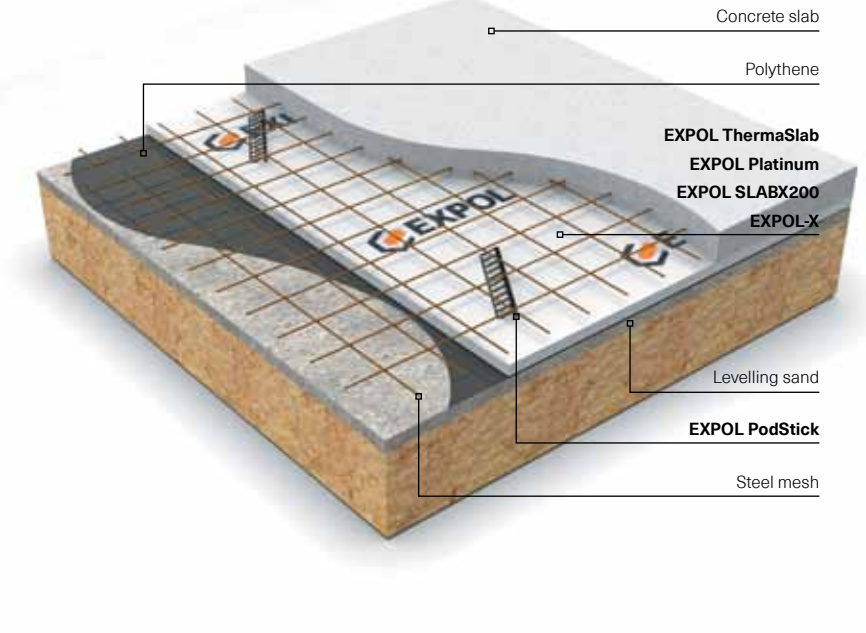
Go NZ Business

NEW ZEALAND OWNED & MANUFACTURED

EXPOL
Guaranteed Performance

CONCRETE FLOOR INSULATION

EXPOL supplies both **Expanded Polystyrene** and **XPS** for under-concrete slab insulation. Depending on the application, one product will be more suitable than the other.



THE PRODUCTS

EXPOL ThermaSlab S and H are the most cost-effective products for insulating under a concrete slab. These densities will suit most residential floors and will achieve R values above building regulations.

EXPOL ThermaSlab VH would normally be required in commercial applications where very high loads are probable. Also see EXPOL-X for these situations.

EXPOL Platinum Board is graphite infused Expanded Polystyrene supplied in sheets suitable for insulating under a concrete slab. EXPOL Platinum Board is a premium product which achieves superior R values relative to thickness, commonly used when thickness is an issue or high R values are required.

EXPOL SLABX200 is specifically designed for insulating concrete slabs. It delivers an uncompromised compressive strength of 200kPa @ 10% deformation and exceptional Insulation Values. Specifically engineered for residential and commercial projects, its high performance gives engineers and specifiers peace of mind while increasing the thermal performance of a building.

EXPOL-X is extruded polystyrene (XPS) available in full sheets only (see Table 3.1). EXPOL-X is highly water resistant and has an extremely high compressive strength. See Table 3.2 for specifications.

Table 3.1

PRODUCT OPTIONS & SIZES

	Length (mm)	Width (mm)
EXPOL ThermaSlab (S/H/VH)	2400	1200
	Other sizes on request	
EXPOL Platinum Board	2400	1200
	Other sizes on request	
EXPOL SLABX200	2400	1200
	Other sizes on request	
EXPOL-X	2500	600

SYSTEM COMPONENTS

EXPOL PODSTICK

Used as an alternative to Mesh / Bar Chairs. Provides more support for steel mesh over polystyrene.

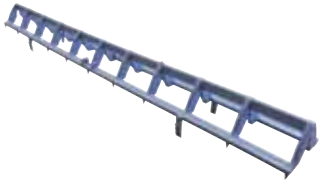


Table 3.2

PRODUCT PROPERTIES

Property	Unit		EXPOL ThermaSlab S	EXPOL ThermaSlab H	EXPOL ThermaSlab VH	EXPOL Platinum Board	EXPOL SLABX200	EXPOL-X - Exterior	Test Reference
Material			Expanded Polystyrene	Expanded Polystyrene	Expanded Polystyrene	Expanded Polystyrene with Graphite	Expanded Polystyrene	XPS	
Density	kg/m3		16	24	28	18		30	
Thickness / R Value		m2K/W							ASTM C518-04
		10mm	-	-	-	-	-	R 0.36	
		20mm	R 0.53	R 0.56	R 0.57	R 0.63	R 0.60	-	
		25mm	R 0.66	R 0.69	R 0.71	R 0.78	R 0.75	-	
		30mm	R 0.79	R 0.83	R 0.86	R 0.94	R 0.90	R 1.10	
		35mm	R 0.92	R 0.97	R 1.00	R 1.09	R 1.06	-	
		40mm	R 1.05	R 1.11	R 1.14	R 1.25	R 1.22	R 1.45	
		45mm	R 1.18	R 1.25	R 1.29	R 1.41	R 1.36	-	
		50mm	R 1.32	R 1.39	R 1.43	R 1.56	R 1.50	R 1.80	
		55mm	R 1.45	R 1.53	R 1.58	R 1.72	R 1.66	-	
		60mm	R 1.58	R 1.67	R 1.71	R 1.88	R 1.81	-	
		65mm	R 1.71	R 1.81	R 1.86	R 2.03	R 1.97	-	
		70mm	R 1.84	R 1.94	R 2.00	R 2.19	R 2.12	-	
		75mm	R 1.97	R 2.08	R 2.20	R 2.34	R 2.20	R 2.70	
		80mm	R 2.11	R 2.22	R 2.29	R 2.50	R 2.42	-	
		85mm	R 2.24	R 2.36	R 2.43	R 2.66	R 2.57	-	
		90mm	R 2.37	R 2.50	R 2.57	R 2.81	R 2.73	-	
		95mm	R 2.50	R 2.64	R 2.72	R 2.97	R 2.88	-	
		100mm	R 2.63	R 2.78	R 2.86	R 3.13	R 3.00	R 3.60	
		110mm	R 2.89	R 3.06	R 3.14	R 3.44	R 3.34	-	
		120mm	R 3.16	R 3.33	R 3.43	R 3.75	R 3.64	-	
		150mm	-	-	-	-	R 4.50	-	
		200mm	-	-	-	-	R 6.00	-	
Compressive Resistance		KPA at 1%	34	64	88	-	-	-	AS 2498.3
Compressive Resistance		KPA at 2%	59	108	142	-	-	-	
Compressive Resistance		KPA at 5%	74	133	172	-	-	-	
Compressive Resistance		KPA at 10%	84	146	189	105	200	250	
Youngs Modulus		(MPA)	3.8	6.2	8	-	-	-	
Cross breaking strength		KPA	165	260	320	200	-	-	AS 2498.4
Determination of flame propagation surface ignition									
Medium flame duration (max)		sec	2	2	2	2	-	-	AS2122.1-1993
Eighth value		sec	3	3	3	3	-	-	
Fire behaviour - Spread of Flame Index		(0-10)	0	0	0	0	-	0	AS/NZS
- Smoke Developed Index		(0-10)	5	5	5	5	-	3	1530.3:1999
Dimensional stability of length, width & thickness (max) at 70 deg C for 7 days		%	1	1	1	1	-	-	AS2498.6
Recycled content		%	0	0	0	0	-	0	
Rate of water vapour transmission (max) measured parallel to rise at 23°C		mg/m2s	520	460	400	520	-	-	AS 2498.5
Permeability		m/s	-	-	-	-	-	-	
Long term water absorption by immersion		% v/v	-	-	-	-	-	0.028	ASTM C272

FURTHER INFORMATION

For further detailed information on all products refer page 34 or contact EXPOL 0800 86 33 73.
For Expanded Polystyrene Densities and Colour Coding refer page 35.

MANUFACTURING STANDARD

All products and grades of Expanded Polystyrene supplied by EXPOL for concrete floors comply with manufacturing standard AS 1366 Part 3 1992.

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