

## EXPOL UNDERFLOOR INSULATION FAMILY – TECHNICAL DATA SHEET

## 1.0 - Product Overview

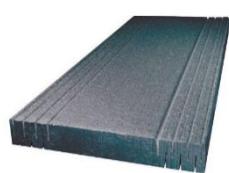
Trusted by Kiwis for more than 25 years, **EXPOL UnderFloor Insulation** (UnderFloor) is easy-to-install and is available in 4 convenient joist widths 360, 410, 470, 560 (mm). It is the DIY solution that will keep your home warm, dry and healthy.

Suitable for use in both new and existing homes, **EXPOL UnderFloor Insulation** comes with a 50-year product warranty and requires no maintenance.

EXPOL provides EXPOL R1.4 White, EXPOL R1.8 Black, R2.5 and R3.1 Black UnderFloor Insulation for insulating between the joists under timber floors. **EXPOL UnderFloor** is specifically designed for both new and existing floors.



Expol R.1.4 White & R2.5 White.



Expol R1.8 Black & R3.1 Black



## 2.0 - Installation

2.1 There are no special requirements for UnderFloor when handling or installing UnderFloor. It is an inert, non-toxic material.

2.2 When transporting, storing or installing, ensure the UnderFloor is not exposed to:

- Petroleum based solvents, or
- Fire, or
- Sustained direct sunlight.

2.3 PVC sheathed electrical cables should not be allowed direct contact with UnderFloor.

2.4 UnderFloor is compatible with all common construction products.

## 3.0 - Maintenance

3.1 No maintenance required

For further technical information please contact us.

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### 4.0 - Warranty

We believe we manufacture and supply the highest quality UnderFloor, EPS and XPS Foam Insulation products and that is why we stand behind them with some of the best warranties in the industry.

4.1 We provide a 50-year warranty on our UnderFloor Foam Insulation Products – for full warranty details visit [www.expol.co.nz/expol-underfloor-warranty/](http://www.expol.co.nz/expol-underfloor-warranty/)

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### 5.0 - Compliance with the New Zealand Building Code

UnderFloor, when installed and maintained in accordance with the requirements outlined in this technical data sheet, will meet or contribute to meeting the following provisions of the New Zealand Building Code:

- 5.1 Clause B2 Durability, performance B2.3.1 (a), B2.3.1(b)
- 5.2 Clause F2 Hazardous building materials performance F2.3.1(a)
- 5.3 Clause H1 Energy Efficiency, Performance H1.3.1 (a) and H1.3.2 E.

EXPOL UnderFloor is not subject to a warning or ban under the Building Act 2004.

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### 6.0 - Quality Assurance

- 6.1 BRANZ, H1 Energy efficiency performance H1.3.1(a), H1.3.2(e)

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## EXPOL UNDERFLOOR INSULATION FAMILY – TECHNICAL DATA SHEET

### 7.0 - Technical Data

Properties	Test / Method / Standard	EXPOL R1.4 UNDERFLOOR INSULATION	EXPOL R1.8 UNDERFLOOR INSULATION	EXPOL R2.5 UNDERFLOOR INSULATION	EXPOL R3.1 UNDERFLOOR INSULATION
Material	Expanded Polystyrene	without Graphite	with Graphite	without Graphite	with Graphite
Density		12 kg / m3	18 kg / m3	12 kg / m3	18 kg / m3
Sheet Size		1200 mm x 60 mm x 360 mm   1200 mm x 60 mm x 410 mm 1200 mm x 60 mm x 470 mm   1200 mm x 60 mm x 560 mm		1200 mm x 100 mm x 360 mm   1200 mm x 100 mm x 410 mm 1200 mm x 100 mm x 470 mm   1200 mm x 100 mm x 560 mm	
Thickness / R Value	60mm	R 1.40	R 1.80		
	120mm	R 2.80	R 3.60		
	100 mm			R2.5	R 3.1
Thermal Conductivity	ATSM 168	K – Value 0.043	K – Value 0.032	K – Value 0.043	K – Value 0.032
Rate of water vapour transmission (max) measured parallel to rise at 23 deg C	AS 2498.5	630 mg/m2s	520 mg/m2s	630 mg/m2s	520 mg/m2s
Permeability m/s		-	-	-	-
Compressive Resistance KPA at 1%	AS 2498.3	- KPA	- KPA	- KPA	- KPA
Compressive Resistance KPA at 2%		- KPA	- KPA	- KPA	- KPA
Compressive Resistance KPA at 5%		- KPA	- KPA	- KPA	- KPA
Compressive Resistance KPA at 10%		70 KPA	105 KPA	70 KPA	105 KPA
Youngs Modulus	-	- MPA	- MPA	- MPA	- MPA
Cross breaking strength KPA	AS 2498.4	135 KPA	200 KPA	135 KPA	135 KPA
Dimensional stability of length, width & thickness (max) at 70 deg C for 7 days	AS2498.6		1%		
Long term water absorption by immersion	ASTM C72		- %v / v		
Determination of flame propagation surface ignition	AS2122.1-1993		2 sec		
Medium flame duration (max)			3 sec		
Eighth vale					
Fire behavior					
Spread of flame index (0 – 10)	AS/NZS 1530.3:1999		0		
Smoke developed index (0 – 10)			5		
Recycled Content		30%	0%	30%	0%
Recyclability		UnderFloor is 100% recyclable			
Environmental Statement		UnderFloor is inert and non-toxic. There are no chemicals or gases harmful to the environment emitted from UnderFloor either during manufacture or within use.			
Ozone Depleting Potential		UnderFloor does not contain ozone-depleting CFC or HCFC gases, nor use them in its manufacture. As a result, UnderFloor has zero ozone depletion potential.			
Vermin Resistance		UnderFloor does not offer any nutritive value.			

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