

## EXPOL R3.1 BLACK UNDERFLOOR INSULATION – 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 fl



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### 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.

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### 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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7.0 - Technical Data

Properties	Test / Method / Standard	Test Results
Material	Expanded Polystyrene with Graphite	
Density	18 kg / m <sup>3</sup>	
Sheet Size	1200 mm x 100 mm x 360 mm 1200 mm x 100 mm x 470 mm	1200 mm x 100 mm x 410 mm 1200 mm x 100 mm x 560 mm
Thickness / R Value	100mm	R 3.1
Thermal Conductivity	ATSM 168	K – Value 0.032
Rate of water vapour transmission (max) measured parallel to rise at 23 deg C	AS 2498.5	520 mg/m <sup>2</sup> s
Permeability m/s	-	
Compressive Resistance KPA at 1%	AS 2498.3	- KPA
Compressive Resistance KPA at 2%		- KPA
Compressive Resistance KPA at 5%		- KPA
Compressive Resistance KPA at 10%		105 KPA
Youngs Modulus	-	- MPA
Cross breaking strength KPA	AS 2498.4	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	AS/NZS 1530.3:1999	
Spread of flame index (0 – 10)		0
Smoke developed index (0 – 10)		5
Recycled Content	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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