

Expol Underfloor Insulation

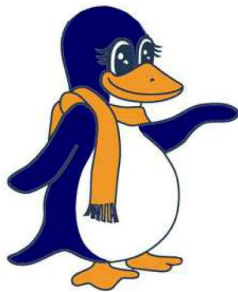
Expol Underfloor Insulation – General approach

Installation is very simple, you need to measure the distance between your joists, and they should be fairly similar depending on the age of your house. Once you have the measurements then you can purchase the size that you require.

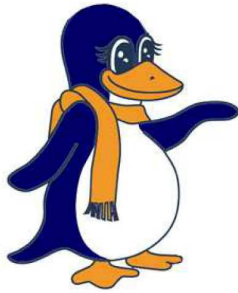
If you look at our brochure you will see what the sheets look like. They have a concertina cut on each side of the sheet which you can squeeze together and place in between each joist; once you release it the sheet then expands and holds itself between the joists.

If the joist happens to be bigger than the sheet then you can use the fixing clips that just need to be nailed two per sheet at diagonal corners. These only need to be used in windy areas or if a joist happens to be larger than the majority of joists. If the joist is smaller the sheets can simply be trimmed down with a long blade Stanley knife along one of the concertina cuts.

You will need to cover any electrical wiring running along the joist that is going to be in contact with the Expol Underfloor Insulation, we have 20 metre rolls of wire guard, this can be glued over the top of the electrical wire prior to putting up the insulation.



Expol Underfloor Insulation



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Specifications

UNDERFLOOR INSULATION

- Expol Underfloor Insulation achieves an R Value of 1.4.
- Four sizes include:
 - 360mm (between joists)
 - 410mm (between joists)
 - 470mm (between joists)
 - 560mm (between joists)

Note: See 'Helpful Calculations' for converting sizes to square metres and allowing for joists.

- All panels are:
 - 1200mm long
 - 55mm thick
- All panels have:
 - 20mm ridges (in addition to The 55mm thickness)

Note: 20mm ridges are designed to create a 20mm air space for additional insulation – this air space must be sealed to work efficiently as insulation.

WIREGUARD

Wireguard is supplied in 20m rolls. It is designed for the purpose of separating exposed wiring from Expol Underfloor Insulation.

One reason for this is that the wires are installed by a PVC plastic that incorporates a plasticiser to increase the elastic properties. Polystyrene in some cases reacts to the plasticiser and degrades the elastic properties. Also it is a requirement of the Australian Wiring Rules that wiring is installed with an air space. I.e. not fully covered with insulation (of any type) as this may cause overheating of the wires.

See note under Installation – ELECTRICAL CABLES

FIXINGS

Expol fixings are designed to secure Expol underfloor panels in new and existing home applications. For new homes fixings are nailed flush with the top of the joist which creates the correct position for the placement of the panel. For retro fitting in existing homes, fixing are for any loose panel and high wind areas.

Questions to ask your Customer

- How many m² do they require or how many panels do they require? Check that they have made an allowance for floors joists, **deduct approx 5%**.
- What width do they require? – check whether this is the gap measurement between the floor joist or whether it is the centres measurements.
- If the customer has many different measurements remember you can cut the panels down at least 40mm off each side so you may be able to supply a maximum of 3 sizes per order to cover their variance.
- Ask if the application is for a new floor, existing floor or high wind area – this will determine whether or not you will need to order fixings available for purchase in packs of 50.

How to Order

- **State clearly** on order whether it is m² or panels you are ordering.
- **State clearly** on order whether the width measurement is the gap measurements or centres.
- Fixings can be purchased in bags of 50 if required. Allow 2 fixings per panel.



Frequently Asked Questions

- 1. What will happen to Expol Under Floor Insulation in a fire?**
Expol Underfloor Insulation contains a flame retardant additive to inhibit accidental ignition. It is however an organic material and will burn so normal care should be taken.
- 2. Does Expol Underfloor Insulation give off any toxic fumes?**
The level of toxicity of Expol Underfloor Insulation in a fire situation is no greater than that of the burning timber.
- 3. What if the customer's size differs from those on the brochure?**
The Flexi cut edges allows the panels to be cut down in size when floor joists are varying in size.
- 4. Do I need to use the fixings for an existing floor?**
Use the fixings **only** to secure loose panels and to support any areas where the underfloor is subject to wind. Most panels will be supported by a friction fit.
- 5. Do I need to use fixings for a new floor?**
Yes. When fixing from the top of the joist the nylon fixing is placed flush with the top of the joist; this will ensure the panel sits flush with the underside of the floor. Usually a maximum of two fixings per panel.
- 6. How is Expol Underfloor Insulation sold?**
It is packed in plastic bags containing approximately six square metres per bag depending on panel width.
- 7. How does Expol Underfloor compare to Reflective Foil Insulation?**
Expol Underfloor has an effective R Value of 1.4 when installed and this value can be used by the Rating Software to calculate your building Energy Star Rating. Reflective Foil insulation products derive their insulation capability based on the reflective foil surface and the still are layer trapped adjacent to it. In underfloor applications the possibility to achieve the layer of trapped air is reduced. The "Accurate" Insulation Calculations Software used to determine the buildings Energy Star Rating only give an R Value of 0.5 for Foil products. You should check with the Reflective Foil Supplier for each product and specifically the underfloor application.



EXPOL Under-Floor Insulation Installation Instructions

FITTING – Existing Floors

Ensure you have a sharp knife or saw for cutting and trimming panels. Fit panels with the 20mm ridges touching the underside of the floor. Select the correct panel width for the correct joist space, as you might have ordered more than one size. Trim the edges of the panels by cutting one or more of the concertina edges. Always ensure the width of the panel is over size to create a snug fit between the floor joists. If installed as per the manufacturer's instructions, the total R Value achieved will be R1.4. This represents a combination of the polystyrene thickness and the 20mm air gap provided by the ridges.

FIXINGS & NEW FLOORS

Non corrosive nylon fixings with a stainless steel nail are available for purchase **ONLY TO SECURE LOOSE PANELS AND TO SUPPORT PANELS WHERE THE UNDER-FLOOR IS SUBJECT TO WIND AND WHEN INSULATING NEW FLOORS.** Most panels will self support between the joists with a friction fit. When insulating new floors, nail two fixings at opposite corners per panel, flush with the top of the joist, the panel will then sit flush with the under side of the floor.

PIPES & PLUMBING including heating ducts and registers.

To accommodate obstacles such as pipes and plumbing, use a sharp knife to cut the panel and notch around those difficult areas. It is acceptable to use polyurethane foam material to seal off the more difficult areas. This product is available from most hardware stores. To retain maximum insulation, ensure all air gaps are sealed around the outside perimeter.

RECOGNISED INSTALLERS

If you would prefer to have Expol Under-Floor insulation installed by a recognised installer, contact us for an installer near you.



ELECTRICAL CABLES

CAUTION: ELECTRICAL CABLES AND EQUIPMENT PARTIALLY OR COMPLETELY SURROUND WITH BULK THERMAL INSULATION MAY OVERHEAT AND FAIL. THIS APPLIES TO WIRING INSTALLED PRIOR TO 1989. READ THE FOLLOWING INSTRUCTIONS – For cables installed prior to 1989 ensure all insulation is fitted leaving the cables exposed. If fitting around down lights or other electrical appliances, leave a 150mm clearance around the appliance. Use Expol Wireguard to separate all other electrical cables from Expol under-Floor Insulation.

UTILISE YOUR WASTE

If you are left with product over, instead of burning or dumping, why not insulate another area of your home, such as your hot water cupboard or ceiling where insulation may have been removed. If you have small scraps left, break into pieces the size of your thumb nail and mix with the soil in your pot plants to aid drainage and root growth.

BRANZ APPRAISAL

Expol Under-Floor Insulation has been appraised by BRANZ and complies with Certificate No. 256 (2006). Please refer to the certificate for further technical information.

Copies of the BRANZ Appraisal are available by calling our toll free number 1-800 86 33 73 or by downloading from www.expol.com.au

INSULATION STANDARD

Expol Under-Floor Insulation complies with the Australian and New Zealand Standard AS/NZS 4859.1:2002.

MANUFACTURING STANDARD

All panels have a yellow stripe down one edge to confirm compliance with manufacturing standard AS 1366 part 3 1992 for SL Grade. The weight of product in each bag is stated as minimum, and may vary according to any residual moisture content after manufacture.

These instructions were updated [April 2008](#). We trust that for years to come, you will enjoy the benefits of fitting Expol Under-Floor Insulation beneath your home.



Helpful Calculations

JOIST MEASUREMENTS & BUDLE SIZES

Note: All measurements shown in millimetres.

Centres Measurement	Measurement between Joists	Pieces per Bundle	m ² per Bundle
400	360	13	5.6
450	410	12	5.9
510	470	11	6.2
600	560	10	6.7

Note: To allow for joists when floor area is stipulated, deduct 5% of overall square metres.

CONVERTING BETWEEN M2 & PANELS

Note: All measurements are converted to metres.

M ² to Panels	Panels to m ²	M ² to M ³
m ²	panel Qty	m ² x .055 = m ³ (UF)
Divided by 1.2	Multiply by 1.2	
Divided by width (e.g. .560)	Multiply by width	
= panel Qty	= m ²	e.g: 120 x .055 = 6.6m ³



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Additional Information

- Branz Appraisal
- Brochures

