

**NEW GENERATION**  
Consciously designed  
& engineered

**50**  
YEAR  
UnderFloor  
Product  
Warranty



## EXPOL Premium UnderFloor Insulation

 Designed to meet  
1 May, 2023 new  
Building Code  
changes

EXPOL  
UnderFloor R1.4 & R1.8



Creating a  
warm, healthy  
environment  
for your family.

EXPOL  
UnderFloor R2.5 & R3.1




# TIMBER UNDERFLOOR INSULATION

## R1.4 & R1.8

EXPOL UnderFloor has been used to insulate under timber floors for over 25 years and is an iconic New Zealand solution when it comes to creating a warmer, healthier home.

**50**  
YEAR  
UnderFloor  
Product  
Warranty



R1.4 bags are colour coded to joist width

R-Value  
**1.4**

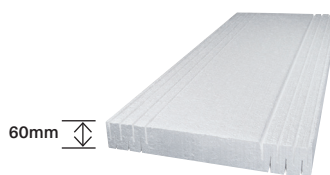
### EXPOL R1.4 UnderFloor Insulation

A rigid white panel manufactured from Expanded Polystyrene material, 1200mm in length, 60mm thick and manufactured in four standard widths 360, 410, 470, 560.

It is the ideal solution for normal New Zealand suburban environments or rural areas which do not have extreme temperatures and has been in the

market for 25 years. EXPOL R1.4 contains recycled content and can be recycled.

Backed by a 50 year EXPOL product warranty giving you the satisfaction of knowing that you will have a warmer, drier, healthier home in winter.



- For new or existing timber floors
- Easy to install
- 50 year EXPOL product warranty
- Saves on power bills
- Flame retardant
- Moisture resistant

## PRODUCT OPTIONS & SIZES

Dimensions (mm)	Thickness	Length	Width	p/bag	m <sup>2</sup> coverage
EXPOL R1.4 UnderFloor Insulation	60	1200	360	12	5.18
	60	1200	410	11	5.41
	60	1200	470	10	5.64
	60	1200	560	9	6.05
EXPOL R1.8 Black UnderFloor Insulation	60	1200	360	12	5.18
	60	1200	410	11	5.41
	60	1200	470	10	5.64
	60	1200	560	9	6.05



## New Building Code changes

New regulations came into effect on 1 May, 2023 which could affect the circumstances where these traditional insulation products can be used within the Building Code.

For UnderFloor Insulation products which have been specifically designed to meet the 2023 insulation regulations see following pages 4 & 5.

# CALCULATE HOW MANY PACKS YOU WILL NEED

Area to be insulated based on perimeter		Number of Packs Required			
m <sup>2</sup>	feet <sup>2</sup>	360mm	410mm	470mm	560mm
10	108	2	2	2	2
20	215	4	4	4	4
30	323	6	6	6	5
40	431	8	8	8	7
50	538	10	10	9	9
60	646	12	12	11	10
70	753	14	13	13	12
80	861	16	15	15	14
90	969	18	17	16	15
100	1076	20	19	18	17
110	1184	22	21	20	19
120	1292	24	23	22	20



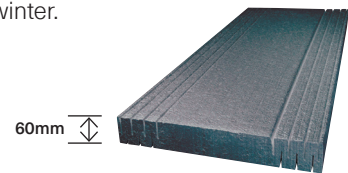
## EXPOL R1.8 UnderFloor Insulation

A rigid black panel infused with graphite making it up to 30% more efficient than other polystyrene panels.

EXPOL R1.8 is ideal for extremely cold temperatures and windy environments and can be recycled.

Manufactured from graphite infused black Expanded Polystyrene material, 1200mm in length, 60mm thick in four standard widths 360, 410, 470, 560.

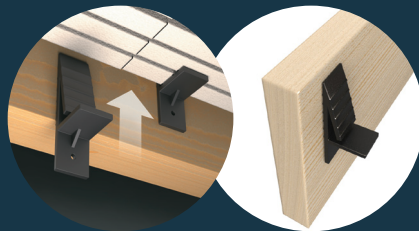
Backed by a 50 year EXPOL product warranty giving you the satisfaction of knowing that you will have a warmer, drier, healthier home in winter.



DO NOT STORE IN DIRECT SUNLIGHT! Product could be damaged and warranty will be void.

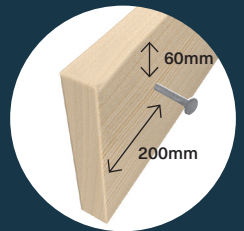
### EXISTING FLOORS

EXPOL Z Clips for R1.4 / R1.8 (60mm) are designed as a push fit - no nails bracket to squeeze between the panel and the joist.



### NEW FLOORS

Fix two 60mm Galvanized Nails diagonally in opposite corners of the space approx 200mm from the end of the joists, 60mm from the top of the joist.



Timber flooring

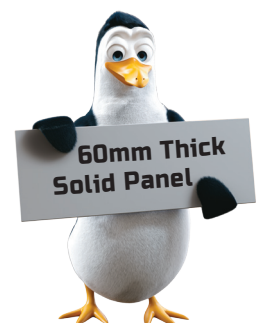
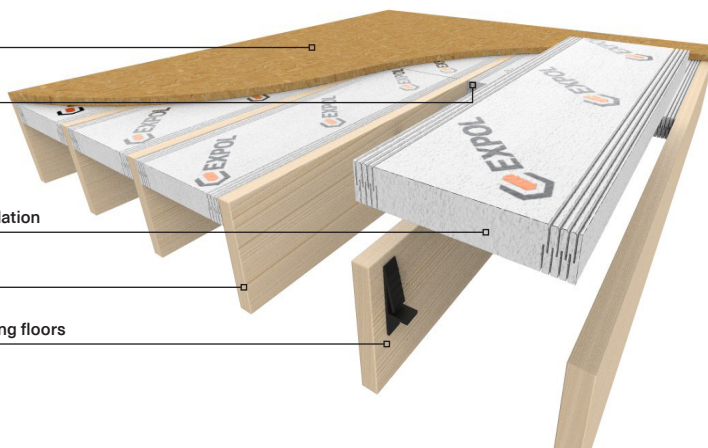
EXPOL WireGuard

EXPOL R1.4 UnderFloor Insulation

EXPOL R1.8 Black UnderFloor Insulation

Joist

EXPOL Z Clip for existing floors





# TIMBER UNDERFLOOR INSULATION

## R2.5 & R3.1



**NEW GENERATION**  
Consciously designed  
& engineered

EXPOL's new generation, high performance insulation range is specifically designed to meet the new Building Code Standards introduced on 1 May, 2023. Our goal is to reduce our carbon footprint and deliver dryer, warmer, healthier and environmentally friendly spaces.

**50**  
YEAR  
UnderFloor  
Product  
Warranty



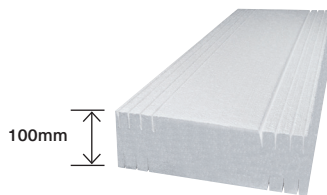
### EXPOL R2.5 UnderFloor Insulation

This is EXPOL's New Generation UnderFloor R2.5 panel consciously designed and engineered to meet the new Building Code Regulations introduced on 1 May, 2023.

Made from white Expanded Polystyrene that contains recycled content it is 1200mm in length, 100mm thick and manufactured in four standard widths 360, 410, 470, 560.

It is the ideal solution for normal New Zealand suburban environments or rural areas which do not have extreme temperatures. EXPOL R2.5 contains recycled content and can be recycled.

BRANZ appraised with a 50 year EXPOL product warranty gives you the satisfaction of knowing that you will have a warmer, drier, healthier home in winter.



R2.5 bags are colour coded to joist width

- For new or existing timber floors
- Easy to install
- R2.5 BRANZ appraised
- 50 year EXPOL product warranty
- Saves on power bills
- Flame retardant
- Moisture resistant

## PRODUCT OPTIONS & SIZES

Dimensions (mm)	Thickness	Length	Width	p/bag	m <sup>2</sup> coverage
EXPOL R2.5 UnderFloor Insulation	100	1200	360	7	3.02
	100	1200	410	6	2.95
	100	1200	470	6	3.38
	100	1200	560	5	3.36
EXPOL R3.1 Black UnderFloor Insulation	100	1200	360	7	3.02
	100	1200	410	6	2.95
	100	1200	470	6	3.38
	100	1200	560	5	3.36



## New Building Code changes

New regulations came into effect on 1 May, 2023.

These UnderFloor Insulation products have been specifically designed to meet the new Building Code insulation regulations.

# CALCULATE HOW MANY PACKS YOU WILL NEED

Area to be insulated based on perimeter		Number of Packs Required			
m <sup>2</sup>	feet <sup>2</sup>	360mm	410mm	470mm	560mm
10	108	4	4	3	3
20	215	7	7	6	6
30	323	10	11	9	9
40	431	14	14	12	12
50	538	17	17	15	15
60	646	20	21	18	18
70	753	24	24	21	21
80	861	27	28	24	24
90	969	30	31	27	27
100	1076	34	34	30	30
110	1184	37	38	33	33
120	1292	40	41	36	36



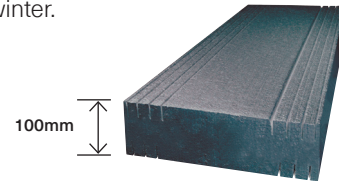
## EXPOL R3.1 UnderFloor Insulation

A rigid black panel infused with graphite making it up to 24% more efficient than other polystyrene panels.

EXPOL R3.1 is ideal for extremely cold temperatures and windy environments and can be recycled.

Manufactured from graphite infused black Expanded Polystyrene material, 1200mm in length, 100mm thick in four standard widths 360, 410, 470, 560.

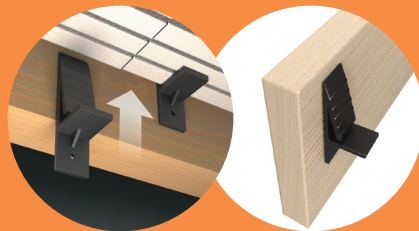
Backed by a 50 year EXPOL product warranty giving you the satisfaction of knowing that you will have a warmer, drier, healthier home in winter.



DO NOT STORE IN DIRECT SUNLIGHT! Product could be damaged and warranty will be void.

### EXISTING FLOORS

EXPOL Z Clips for R2.5 / R3.1 (100mm) are designed as a push fit - no nails bracket to squeeze between the panel and the joist.



### NEW FLOORS

EXPOL Joist Saddles for R2.5 & R3.1 are designed to slip over the joist to support and secure the 100mm panel.



Timber flooring

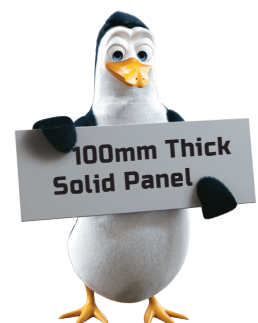
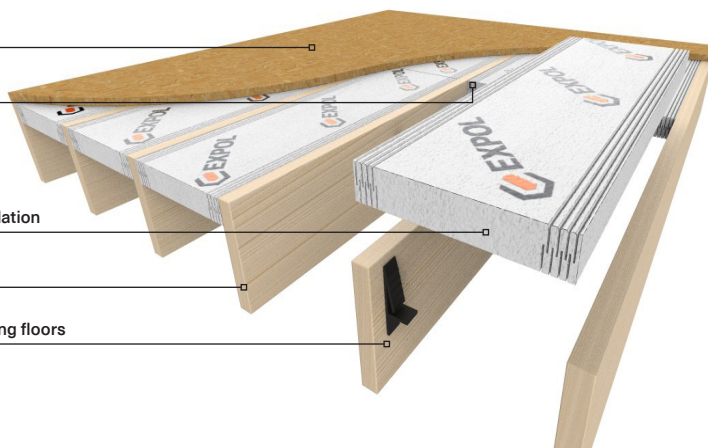
EXPOL WireGuard

EXPOL R2.5 UnderFloor Insulation

EXPOL R3.1 Black UnderFloor Insulation

Joist

EXPOL Z Clip for existing floors



# EXPOL is ideal for retro-fitting under existing timber floors or new timber floors.

## NEW FLOORS

- Ideal when building new homes.
- Easy to install.
- Saves time by installing the insulation before you put the floor down.
- Creates a moisture barrier.
- R2.5 UnderFloor meets the minimum R-value for timber floors.
- R3.1 UnderFloor exceeds the minimum R-value for timber floors.

## EXISTING FLOORS

- Great for polished floor areas in bungalows & villas.
- Easy to install.
- Eliminates draughty gaps.
- Creates a moisture barrier.
- R2.5 UnderFloor meets the minimum R-value for timber floors.
- R3.1 UnderFloor exceeds the minimum R-value for timber floors.

## SYSTEM COMPONENTS



### WIREGUARD

EXPOL WireGuard is a waxed paper strip used to separate exposed electrical cables from EXPOL insulation. Expanded Polystyrene in some cases reacts with the plasticiser and degrades the elastic properties of some electrical cables over a prolonged period.

### FIXINGS

There are two types of fixings specific to existing floors and new floors. They are made from non-corrosive nylon and are used to fix the EXPOL panels in place.

- **Existing Floors:** EXPOL Z Clips for R1.4 / R1.8 (60mm) & R2.5 / R3.1 (100mm) are designed as a push fit - no nails bracket to squeeze between the panel and the joist.
- **New Floors:** EXPOL Joist Saddles for R2.5 & R3.1 are designed to slip over the joist to support and secure the 100mm panel.



### STYRO-FIX CONSTRUCTION ADHESIVE

Styro-FIX is an advanced single component polyurethane-based construction adhesive.

This powerful adhesive is developed especially for the construction industry and will bond most types of construction materials including timber (damp and dry), concrete, plasterboard, polystyrene and many other porous and non-porous substrates.

It bonds expanded polystyrene to most surfaces, delivers strong adhesion and rapid cure, it is gun-able and non-drip.



We provide a **50-year warranty** on our UnderFloor Products - Full details: [www.expol.co.nz/expol-underfloor-warranty](http://www.expol.co.nz/expol-underfloor-warranty)

## FURTHER INFORMATION

### SPECIFIERS, ARCHITECTS AND PLANNERS

For all specifying information, relevant product testing and other detailed information please refer to MasterSpec documents on [www.masterspec.co.nz](http://www.masterspec.co.nz) or contact EXPOL for an electronic copy.

### BRANZ APPRAISAL

EXPOL R2.5 UnderFloor has a BRANZ appraisal. See BRANZ certificate number 256.

### INSULATION STANDARD

All EXPOL timber floor insulation solutions comply with the Australian and New Zealand Standard AS/NZS 4859.

### 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.



## EXPOL AND THE ENVIRONMENT



**WE RECYCLE OVER 400 TONS OF POLYSTYRENE EVERY YEAR THROUGH SEVEN RECYCLING PLANTS NATIONWIDE.**

[WWW.EXPOL.EARTH.CO.NZ](http://WWW.EXPOL.EARTH.CO.NZ)

**75%**  
OF OUR PRODUCTS (BY VOLUME) CONTAIN RECYCLED CONTENT.

**98%**  
COMPOSITION OF OUR POLYSTYRENE PRODUCT IS AIR.

**100%**  
OF OUR RANGE IS RECYCLABLE.



## LOOK OUT FOR EXPOL INSTORE RECYCLING CUBES



# Easy Step Guide

Looks like you are about to take the next step to creating a healthier home environment. That's great news for you and your family.

Whether you are choosing to have **EXPOL** professionally installed or going it alone, you will not go past **EXPOL UnderFloor Insulation**.

To assist you, we've developed an easy step guide - follow it and you can't go wrong.

Don't forget to pick up your **EXPOL UnderFloor Insulation DIY Ruler**.

Use it to measure the underfloor joist sizes, so you can purchase the correct panels for your DIY Insulation project.

For more detailed project information refer to [www.expol.co.nz](http://www.expol.co.nz)

Useful tools to install EXPOL UnderFloor



**EXPOL**  
Guaranteed Performance

Select EXPOL 560mm UnderFloor  
R1.4 R1.8 R2.5 R3.1

**560** [mm]

Easy to install

Scan the code to access UnderFloor Insulation  
[www.expol.co.nz/under-floor-insulation/](http://www.expol.co.nz/under-floor-insulation/)

Select EXPOL 470mm UnderFloor  
R1.4 R1.8 R2.5 R3.1

**470** [mm]

Select EXPOL 410mm UnderFloor  
R1.4 R1.8 R2.5 R3.1

**410** [mm]

Select EXPOL 360mm UnderFloor  
R1.4 R1.8 R2.5 R3.1

**360** [mm]

**UNDERFLOOR INSULATION DIY RULER**

**EXPOL Premium UnderFloor Insulation**

**NEW GENERATION**  
Consciously designed & engineered

0800 UNDERFLOOR  
[www.expol.co.nz](http://www.expol.co.nz)

Place this end on the side of joist

## Step 1 Measure



Place your **EXPOL UnderFloor Installation DIY Ruler** against one side of the joist. The opposite joist will fall within one of our 4 panel sizes. Joist sizes can vary, so be sure to measure more than one.

You may need a few different panel sizes to complete the job.

## Step 2 Trim the edge



If the panel is too wide, simply slice down the appropriate concertina edge, leaving the panel approximately 5mm over sized to ensure a firm fit.

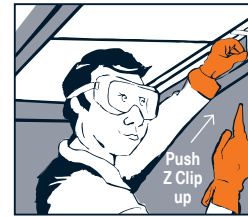
## Step 3 Existing Floor Fixings - R1.4 + R1.8 & R2.5 + R3.1



Slide the panel between the joists. The concertina designed cuts will ensure a tight fit. The panel should be pushed up hard against the bottom of your floor leaving no air gap.

A minimum gap of 200mm must be left around metal heating flues, OA rated recessed down lights and ceiling exhaust fans, and a 50mm gap is required around brick/concrete chimneys.

## Step 3a Existing Floor Clips

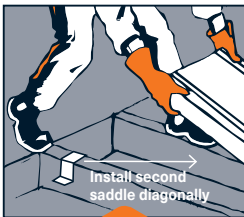


**EXPOL Z Clips** are a push fit – no nails bracket to squeeze between the panel and the joist.

They are to be positioned diagonally in opposite corners under the panel.

Set these 200mm in from the end of the panel.

## Step 3b New Floor Fixings - R2.5 + R3.1 UnderFloor



Before floorboards or flooring sheets are installed. Fix two **EXPOL Joist Saddles** diagonally in opposite corners of the space approx 200mm from the end of the joists. Simply slide the saddles over the joist, nail the saddle into the top of joist if required.

Joist saddles ensure the panel will stay in place once the floorboards or flooring sheets are installed.

## Step 3c New Floor Fixings - R1.4 + R1.8 UnderFloor



Before floorboards or flooring sheets are installed.

Fix two **60mm Galvanized Nails** diagonally in opposite corners of the space approx 200mm from the end of the joists, 60mm from the top of the joist.

The nails will ensure the panel will stay in place once the floorboards or flooring sheets are installed.

## Step 3d New Floors



Simply place the panel on top of the **EXPOL Joist Saddles** or nails.

The panel should sit flush with the top of the joist to ensure there is no air gap.

## Step 4 Electrical



For cables that come into **DIRECT** contact with **EXPOL UnderFloor Panels**, place **EXPOL Wireguard** around the wires before installation. Do not use a staple gun to fix the Wireguard.

Take extra care when working around electrical wiring.

## Step 5 Pipes & Plumbing



For obstacles such as pipes and plumbing, use your sharp knife to cut the panel and notch around the difficult areas.

For future maintenance, leave 100mm clearance around pipes and plumbing.

**EXPOL**  
UnderFloor Insulation colour coded DIY Ruler

**For further installation guidelines**  
Refer to NZS 4246:2016 Energy efficiency - Installing insulation in residential buildings [www.standards.govt.nz](http://www.standards.govt.nz)

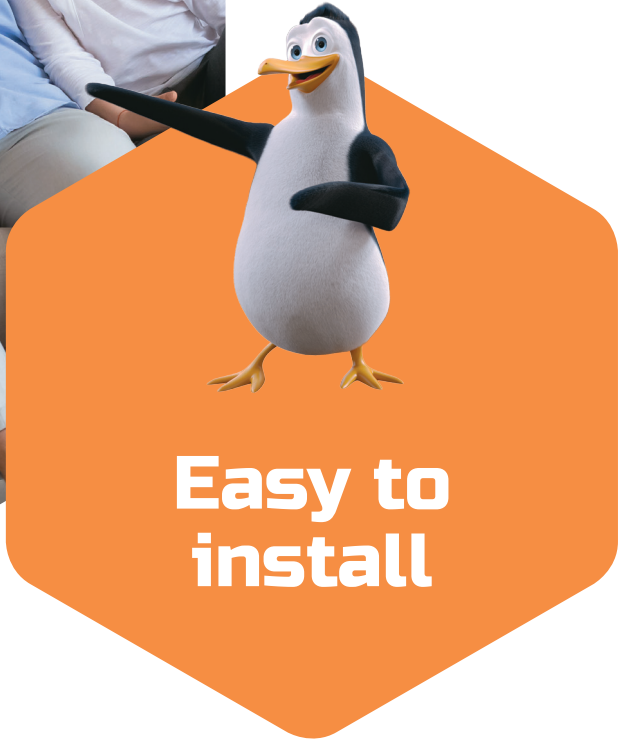




**BRANZ APPRAISAL**  
EXPOL R2.5 UnderFloor has a  
BRANZ appraisal. See BRANZ  
certificate number 256.



**50**  
YEAR  
UnderFloor  
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Wellington  
Blenheim  
Christchurch  
- Belfast  
- Rolleston  
Cromwell

**AUSTRALIA**  
Sydney  
Melbourne  
Adelaide  
Tasmania



Learn about our recycling initiatives



Sustainability  
E: [sustainability@expolearth.co.nz](mailto:sustainability@expolearth.co.nz)

Website  
[www.expolearth.co.nz](http://www.expolearth.co.nz)

