

## PRODUCT DESCRIPTION

Pink® Batts® Insulation Blanket and PermaStop® Blanket consist of long, fine glass wool fibres bonded together with a thermosetting resin to form a lightweight, flexible, blanket insulation. PermaStop® Blanket is faced on one side with a fire retardant double sided foil which is lightly adhered to the glass wool.

Insulation Blanket and PermaStop® Blanket are manufactured in plants with ISO9000 series registration. The manufacturing process is continually quality-controlled to produce product with an assured thermal resistance value.

## APPLICATIONS

Insulation Blanket is normally installed in conjunction with a Building Foil in roofs and walls. Building Foils create a clean finished surface which reflects light and, if required, acts as a vapour barrier.

The product can be supplied as separate components - Insulation Blanket & Building Foil requiring a two step on-site installation process. Alternatively the products can be combined (factory manufactured) with the foil laminated to the PermaStop® Blanket which results in quicker installation times.

## ENVIRONMENT

The manufacture of Insulation Blanket involves a process which uses up to 80% recycled glass. The glass used by Tasman Insulation NZ has recently been tested and classified under European Union guidelines as bio-soluble and carry no carcinogenic risk..

Tasman Insulation NZ continues to recommend the use of simple protective equipment to stop dust from any source that may have settled in the work area from irritating eyes, nose or throat.

## NEW ZEALAND BUILDING CODE (NZBC B2, E3, F2, H1)

Pink® Batts® Insulation Blanket will satisfy the requirements of NZBC Clause B2.3(b) (50 year durability) when used in dry, protected construction cavities. Pink® Batts® Blanket will also contribute towards the relevant provisions of NZBC E3 Internal Moisture, F2 Hazardous Building Materials and H1 Energy Efficiency.

## ACOUSTIC PERFORMANCE

Pink® Batts® Insulation Blanket, when installed in wall or floor cavities, will perform as an acoustic material by providing cavity absorption and helping reduce sound transmission through walls, floors and ceilings (particularly under log run roofing where rain drum can be greatly reduced). Tested results are available for absorption performance.

For specialist acoustic requirements the Noise® Control® Blanket range are high density glasswool blankets with high R-Values specifically designed to suppress the noise of rain on tin roofs. Please contact your local supplier for further information.



**PINK® BATTS®  
INSULATION BLANKET**

**PERMASTOP® BLANKET**



Product	Description	R-Value		Dimensions			NRC
		m²K/W	Thickness mm	Length m	Width mm	Area m²	
<b>Pink® Batts® Insulation Blanket</b>	A glasswool blanket bonded with thermosetting resins for application in commercial and industrial roofs and walls.	R1.2	50	20	1.2	24	.85
		R1.8	75	15	1.2	18	.95
		R2.6	100	12	1.2	14.4	
<b>PermaStop® Blanket</b>	Pink® Batts® Blanket faced with Flamestop® fire retardant vapour barrier to assist in eliminating condensation in air-conditioned buildings.	R1.2	50	15	1.2	18	
		R1.8	75	15	1.2	148	
		R2.6	100	12	1.2	14.4	
<b>Noise® Control® Blanket</b>	Extra heavy weight acoustic glasswool blanket designed specifically to reduce the noise of rain drum on metal sheet roofing.	R1.4	50	16	1.2	19.2	1.00
		R2.1	75	8	1.2	9.6	1.05
		R3.1	100	8	1.2	9.6	

# APPLICATION METHODS AND PROCEDURES

**Roofing** - Insulation Blanket and PermaStop® Blanket are designed for use under any roof system which requires control of temperature loss or gain. PermaStop® Blanket is a true vapour barrier which is necessary for air-conditioned spaces. In these cases the lap should be sealed during installation. This may be accomplished using contact adhesive and/or a tape. A more practical solution for PermaStop® Blanket is suggested using sealant/mastic.

**Wall** - PermaStop® Blanket is installed next to the external cladding with the foil vapour barrier facing outwards (warmer side of insulation). A Building Foil can be used directly beneath the insulation blanket facing inward, the Building Foil facing will reflect light where it is visible. Insulation Blanket is installed in steel stud partition systems for both thermal and acoustic applications.

## INSTALLATION (Tropical Climates)

- Install insulation in a DRY state.
- Butt adjacent edges of insulation tightly together and fill all gaps with off cuts to avoid un-insulated patches.
- Fit insulation tightly around all roof penetrations, vent pipes etc. (Also see notes on Early Fire Hazard Page 4)

- Where cutting is necessary use a sharp knife and straight edge.
- Recommended Building Foil Vapour barrier - Double sided, Heavy Duty, Fire Retardant Building Foil. See separate data sheet for foil products.
- Recommended Foil Tapes - Vapastop® 883 Reinforced Aluminium Tape.
- **Use Building Paper in temperate climates only:** Flamestop® or GreenCap® fitted between roof covering and insulation. See separate data sheet for paper products.
- The methods of application described in this document are the most commonly used in tropical climates, but should not be taken as specific design.
- Where practical it is considered good practice to incorporate an air gap, for ventilation, between the insulation and the metal deck. This however is not standard practice.
- For details for non-tropical climate installation refer to Tasman Insulation New Zealand.

## 1. NEW ROOF APPLICATIONS Pink® Batts® Blanket and PermaStop® Blanket

NOTE: Some of these installation methods may lead to compression of the blanket when used with more rigid support materials such as safety mesh in place of more traditional chickens mesh. Compressing the insulation will result in loss of R values and may mean the roof does not meet Building Code or NZ Standards insulation where relevant.

### 1.1 Blanket Over Purlins

Lay galvanised wire mesh and vapour barrier if required over purlins, at right angles to purlins leaving sufficient slack to allow insulation to retain its nominal thickness between purlins, whilst still in contact with the underside of the decking. Lay insulation blankets/rolls over the mesh, in the same direction as the mesh, firmly butting insulation edges together.

Fix roofing sheets to purlins with fixing nails/screws passing through insulation compressing it at the purlins to about 10mm. When using pan type metal roofing, fix clips as detailed above, then clip metal cladding in normal manner.

**NOTE:** If a vapour barrier is used it should be laid across the purlins on top of the wire mesh. Joints may be lapped and sealed with 50mm Vapastop® 883 aluminium tape.

### 1.2 Blanket Between Purlins

Lay galvanised wire mesh and vapour barrier if required (lapped and sealed as described in 1.1 above) over purlins, at right angles to purlins leaving sufficient slack to allow insulation to retain its nominal thickness between purlins, whilst still in contact with the underside of the decking. Lay insulation blankets/rolls over mesh, butting firmly against purlins and ends of adjacent blankets. Fix roofing sheets in normal manner.

## RECOMMENDED WITH SAFETY MESH

### 1.3 Blanket Between Purlins with Battens

Lay galvanised wire mesh and vapour barrier if required (lapped and sealed as described in (1) above) over purlins, at right angles to purlins. Keep mesh taut and fix to top of purlins. Fix timber battens, equal in depth to nominal insulation thickness, to top of purlins and lay insulation blanket/ rolls in between and parallel to battens. Alternatively insulation blanket may be laid over the timber battens to reduce thermal bridging and improve acoustic performance of the roof. Fix roofing sheets in normal manner.

Fig 1.1.1

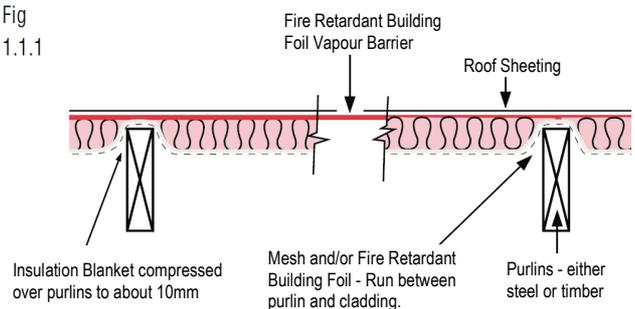


Fig 1.2.1

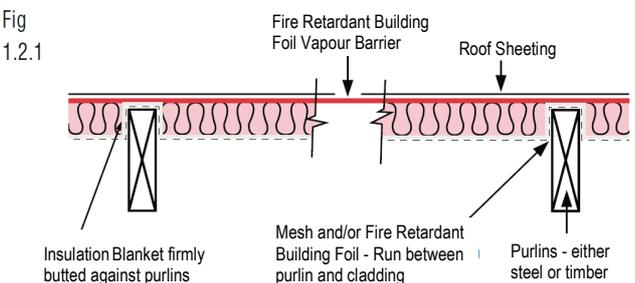
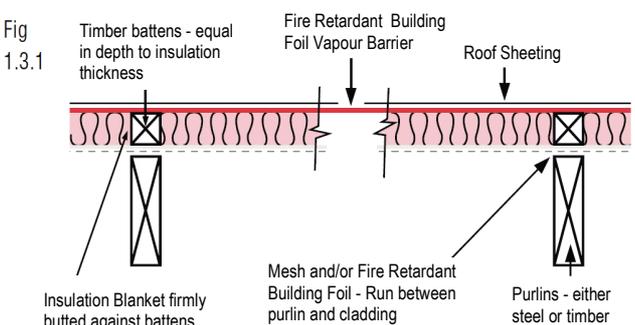


Fig 1.3.1



## 2. EXISTING APPLICATIONS Pink® Batts® Blanket and PermaStop® Blanket

### 2.1 Blanket Between Purlins

2.1.1 Fit galvanised wire mesh (and vapour barrier if required) and insulation simultaneously between purlins. Turn down mesh at edges and fix to sides of purlins, at a depth from the underside of the roof cladding equal to the nominal thickness of the insulation. Ensure mesh is sufficiently taut to hold blanket firmly in contact with underside of sheeting. Butt edges of insulation firmly against purlins and ends of adjacent blankets.

NOTE: A vapour barrier can be used either adhered to the insulation blankets/rolls (PermaStop® Blanket) prior to delivery to site or fitted separately as described above. Mesh will be required for support of Insulation Blanket and/or vapour barrier.

Joints in the vapour barrier should be lapped and sealed with 50mm wide pressure-sensitive Vapastop® aluminium tape. For timber purlins staple edges of vapour barrier as shown, but where steel purlins are used, use screws and washers to hold vapour barrier in position, and then seal with pressure-sensitive Vapastop® aluminium tape.

2.1.2 Fix galvanised wire mesh and vapour barrier simultaneously with insulation to underside of purlins at right angles to purlins by staples/screws or battens with edges butting firmly against sides of purlins and end of adjacent blankets. Lap and seal vapour barrier as described in (2.1.1) above.

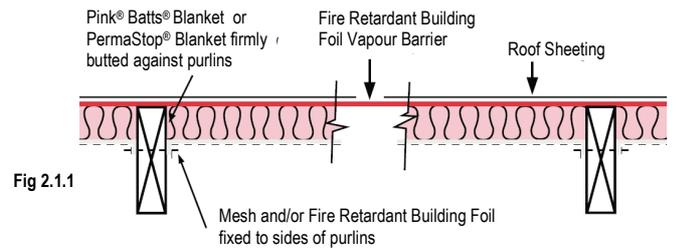


Fig 2.1.1

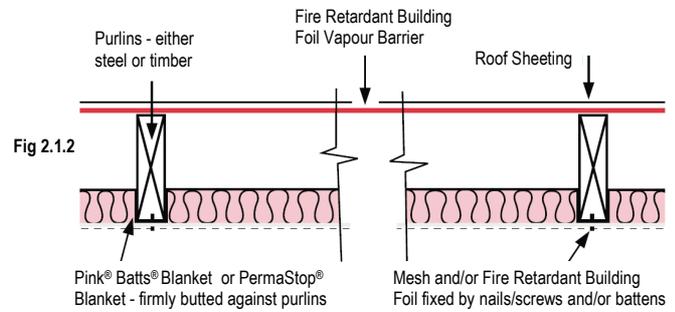


Fig 2.1.2

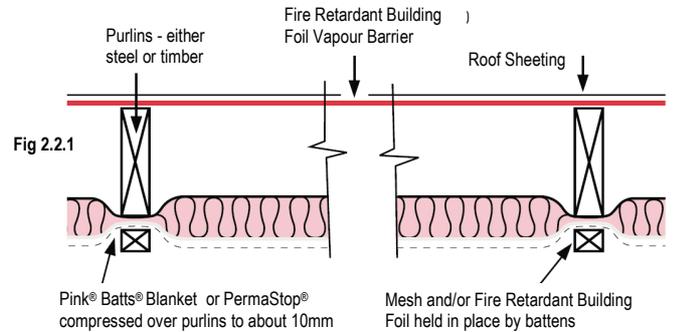


Fig 2.2.1

### 2.2 Blanket Under Purlins

Fit vapour barrier, insulation blankets/rolls, galvanised wire mesh and vapour barrier if required simultaneously to underside of purlins at right angles to purlins. Appropriate temporary fixing to suit the application maybe necessary. Secure insulation by nailing/screwing through battens to purlins compressing insulation to about 10mm.

## ENERGY EFFICIENCY - LARGE BUILDINGS

Building Thermal Envelope Component	Minimum R-Values	
	Tropical Zone 1	Tropical Zone 2
Roof (including Glazing)	R2.6 (PermaStop®)	R1.8 (PermaStop®)
Wall	R1.8 (PermaStop®)	R1.3 (PermaStop®)
Floor	N/A	N/A

R-Values recommend by TINZ to achieve cost effective energy efficiencies in air conditioned commercial buildings where the floor area is more than 300m<sup>2</sup>.

**ZONE 1:** Guam, Hawaii, Papua New Guinea, Solomon Islands, Marshal Islands, Northern Marianas, Kiribati, Marquesas Islands.

**ZONE 2:** Fiji, Samoa, Vanuatu, New Caledonia, Tahiti, Tonga, Cook Islands, Society Islands, Norfolk Island, Kermadec Islands

## 3. WALL APPLICATIONS

### 3.1 Blanket Between Cladding & Girts

Insulation should be firmly fixed to the top of the wall structure. Draping down it should be run over the outside of and at right angles to the girts. Building paper should be placed between cladding and insulation for moisture absorption. Temporary fixing may be necessary, permanent fixing will be achieved when claddings are fixed. Insulation should be compressed to 10mm at the girts with the cladding fixing mechanism passing through the building paper and insulation to the girt.

### 3.2 Blanket Between Steel Studs (600 centres) - Interior Fit Out

Insulation should be split into 600mm wide pieces (pre-split in factory if sufficient quantity is ordered. Check with TINZ) to fit neatly into steel stud partition systems. Product is best installed after one lining layer has been fixed. Product can then be supported on the fixing screws used for the first lining layer. Extra support will be given when the other face of the wall has the lining fixed.

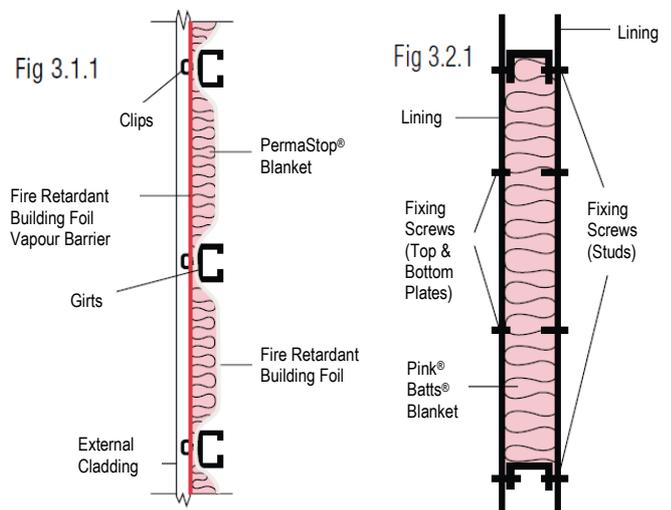


Fig 3.1.1

Fig 3.2.1

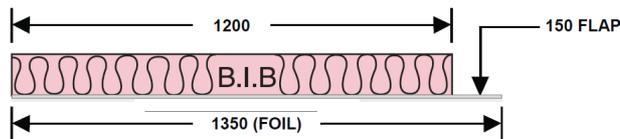
1. PermaStop® Blanket

2. Pink® Batts® Blanket

## PHYSICAL PROPERTIES

Variations of stock size dimensions can be made to special order - on a quotation basis.

### Dimensions of Vapastop® Blanket (see front for roll sizes)



**Facing:** Double sided, Reinforced, Fire Retardant Building Foil

**Early Fire Hazard.** NB Test results are available for:

(a) Plain Insulation Blanket (b) Flamestop® 524. To AS1530 Part 3 1976.

Ignitability Index (0-20) 0

Spread of Flame Index (0-10) 0

Heat Evolved Index (0-10) 0

Smoke Developed Index (0-10) 0

Pink® Batts® Blanket and PermaStop® Blanket are designed for use at ambient temperatures and should not be used in conditions where the temperature exceeds 120°C. Where flues or other similar heat emitting items pass through the insulation layer a 150mm venting gap should be left between that item and insulation. Glass Wool will not burn nor support combustion.

## BENEFITS

**Lower Operating Costs.** The low thermal conductivity of Insulation Blanket provides excellent thermal insulation, thus reducing the running costs of heating equipment.

**Lower Installation Costs.** Large blanket sizes provide reduced installation times as there are fewer time consuming joints resulting in lower installation costs.

**Increased Insulation Efficiency.** Large blanket areas increase insulation efficiency due to the reduction in the number of joints, thus a lesser potential for heat leaks.

**Cost Saving (PermaStop®).** Alternative methods of fixing require separate actions to lay foil and insulation. The two layers are now contained in one roll.

The foil layer is automatically held in position as insulation is unrolled and is much less liable to shift and blow - saving time especially when sealing of joints is not specified.

Foil will not reflect heat and glare into the faces of fixers, leading to time saving with improved site safety.

An overlap flange is provided along one long edge of the foil facing.

## GENERAL

**Corrosion.** Insulation Blanket Glasswool contains no chemicals that are a potential corrosion hazard to other building materials. Inorganic fibres will not cause nor accelerate corrosion of any metal.

**Make-up.** Insulation Blanket Glasswool is made from long, fine glass fibres bonded with a thermosetting resin to provide a factory finished insulation.

**Odour.** Insulation Blanket Glasswool is odourless and will not absorb odours.

**Durability and Performance.** Once installed, the thermal effectiveness of Insulation Blanket Glasswool is permanent. It will not settle, and will remain in place due to their friction fit between structural members.

**Dimension Stability.** The linear shrinkage of Insulation Blanket Glasswool is less than 0.1%.

## HEALTH & SAFETY

**Exposure Limits.** The New Zealand Workplace Exposure Standard for glass wool insulation is:

1 respirable fibre per ml and 5 mg/m<sup>3</sup> inspirable dust (refer OSH WES Booklet, 1992).

It is anticipated that airborne respirable fibre levels will rarely exceed 0.2 f/ml in most user applications.

**Weight.** Lightweight rolls improve on-site safety for roofers working at height.

## FIRST AID

**Eyes.** Flush with flowing water for at least 15 minutes and if symptoms persist seek immediate medical attention.

**Skin.** Wash with mild soap and cool running water. Use a washcloth if necessary to help remove fibres and particles.

**Inhaled.** If symptoms of irritation, remove to fresh air.

**Swallowed.** Give water to drink.

**Information for Doctor.** Treat symptomatically.



*A Fletcher Building Company*

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**TECHNICAL SERVICE:** Our knowledge and expertise are on call through any of our sales offices. We are available to assist in thermal and acoustic design in any applications.

**INFORMATION SERVICE:** Details catalogues and technical literature are freely available from any of our sales offices. Any enquiries related to insulation will also be answered through these.