

FlexiBoard Pipe Insulation

PRODUCT DESCRIPTION

FlexiBoard Insulation is a laminate of rigid glass wool board and a Foil/Kraft substrate which becomes the outer covering of the insulation. The rigid board is machine cut into strips which are rotated through 90° relative to the original plane of manufacture and are then adhered to the substrate. The right-angle orientation of the board relative to the pipe or vessel's outer surface provides good compressive strength. The product is available in two forms, i.e., Standard Flex-board Insulation and Premium Flex-board Insulation.

The standard product uses a substrate Sisalation Light Duty 420, Foil/Kraft/Foil, glass fibre reinforced laminate with a good vapour barrier and flame-retardant qualities properties. The Fibreglass has a nominal density of 45kg/m³.

The premium product is backed with a Sisalation Medium Duty 430 Foil, with excellent vapour barrier, flame retardant qualities and improved abrasion resistance. It is a Foil/Kraft/Foil, glass fibre reinforced laminate. The Fibreglass has a nominal density of 45kg/m³



PRODUCT APPLICATIONS

FlexiBoard Insulation is designed for use on pipes of 300mm diameter and greater, vessels, bulk liquid storage tanks, flues, etc. It is particularly suitable for retrofit of existing equipment in pipes, tunnels, or bridges.

FlexiBoard Insulation Thickness (mm)	Recommended Minimum Pipe Diameter (mm)
38	300
50	350
63	400
75	450
88	500
100	600

The above recommended minimum diameter should not be further reduced since excessive strains may be imposed on the glass wool/substrate bond. Also, excessive compression of the hot insulation surface may provide the potential for excessive binder degradation.

FEATURES/BENEFITS SUMMARY

Large sized boards provide versatility of application since a standard size board is suitable for use on a wide range of pipe sizes. This is particularly beneficial in multi-pipe retrofit applications,

The maximum board length of approximately 4.8 metres reduces inventory cost since the one board is suitable for use on pipes or vessels ranging from 300mm to 1500mm diameter, with only one joint.

The boards are supplied either as a single lay flat board. 2.4 metres long, or doubled over it provides the maximum. 4.8 metre length.

The "lay flat" packaging reduces freight costs and minimizes storage space,

The unique method of fabrication provides high compressive strength which maintains the full insulation thickness.

The 1200mm board width means that each pipe wraps round covers 1200mm pipe length, thus reducing the number of circumferential joints.



INSTALLATION GUIDELINES

The FlexiBoard Insulation should be in a dry condition when applied to the vessel to be insulated.

Any material which has become damp in storage, or in transit to the work site, should be put aside and allowed to dry completely before use.

The surface to be insulated should be clean, dry, and free of grease, dirt, loose rust, and scale. In special cases it may be required that the surface should be painted prior to application of insulation.

Before application of Insulation the outer diameter and circumference on the pipe or vessel, including insulation, should be measured and calculated. If a stapling flap is required, then an additional 50 or 75mm should be added to the calculated measurement.

In the case of pipes or vessels where there is metal cladding on insulation it may be sufficient to butt joint the Flex-Wrap Insulation longitudinally with pressure sensitive aluminium foil tape to hold the insulation in place pending the installation of metal cladding.

In situations where the heavier weight foil covering (430) is used, a stapling flap may be required. To obtain this stapling flap the insulation should be cut 50 or 75mm longer than the calculated external insulation surface length or circumference.

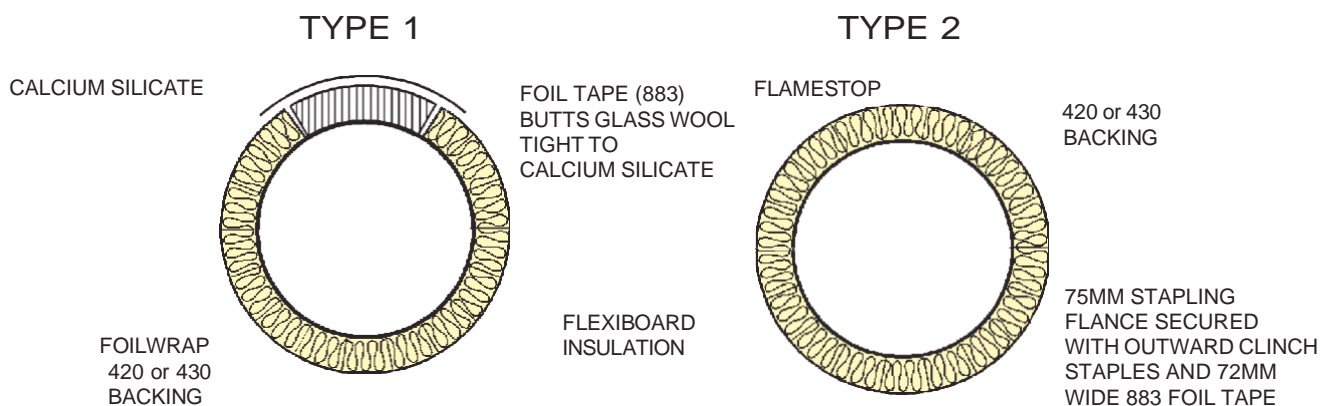
The glass wool insulation should be carefully trimmed back to the required stapling flap dimension, taking care not to puncture the vapour barrier.

After carefully and lightly butting the board edges together, the vapour barrier overlap should be stapled at 75mm centres.

The joint or seam should be sealed with 883 tape or equivalent. Care should be taken to ensure that staple penetrations are completely resealed. (Bostick type T58 outward clinch staples are recommended.)

On pipework, FlexiBoard sections should be tightly butted together at the circumferential joint and sealed with DANCO 883 tape (72mm wide) or equivalent.

INSTALLATION METHODS

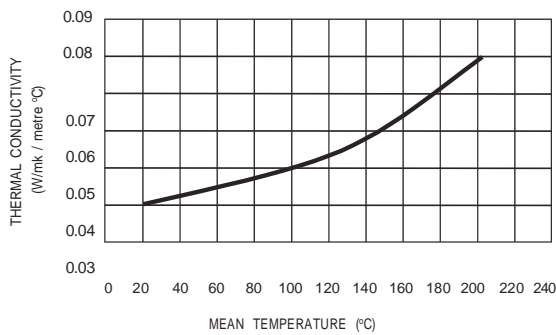


PRODUCT PERFORMANCE

Product Test Result Summary

Thermal Conductivity - Tested by CSIRO using apparatus to requirements of ASTM Test Method C17776.

CSIRO Report Ref. RA1725 File 8/1290J



Sizes Available –

4.8 metres long x 1200mm wide	}	38mm thick
		50mm thick
2.4 metres long x 1200mm wide	}	65mm thick
		75mm thick

Other sizes are available. Enquire for quotation.

FACING OR SUBSTRATE

Standard FlexiBoard – Sisalation Light Duty 420
Glasswool density: 45kg/m³ (nominal)

AS/NZS 4200.1:1994 Classification	Requirement	Performance
Mechanical	Tensile Strength MD > 7.5 kN/m, CD > 4.5 kN/m	Light Duty
	Edge Tear MD > 45 N, CD > 45 N	
Vapour Barrier	≥ 450 MN.s/g	High
Emitance	≤ 0.03	Double Sided-Reflective
Water Barrier	> 100 mm	High
Flammability	> 5	Low
Absorbency	< 100 g/m ²	Unclassified

Premium FlexiBoard - Sisalation Medium Duty 430
Glass wool density: 45kg/m³ (nominal)

AS/NZS 4200.1:1994 Classification	Requirement	Performance
Mechanical	Tensile Strength MD ≥ 9.5 kN/m, CD ≥ 6.0 kN/m	Medium Duty
	Edge Tear MD ≥ 65 N, CD ≥ 65 N	
Vapour Barrier	≥ 450 MN.s/g	High
Emitance	≤ 0.03	Double Sided-Reflective
Water Barrier	> 100 mm	High
Flammability	≤ 5	Low
Absorbency	< 100 g/m ²	Unclassified

Maximum service temperature: 350 °C

Glass wool can be applied to surfaces at temperatures up to 540°C. When placed on surfaces exceeding 180°C, the insulation will lose some of its resin binder. The depth of resin loss will be determined by the temperature of the hot surface and the thickness of the insulation. Thermal performance is unaffected by the loss of resin binder.

Moisture Absorption - BS 2972/1961.

Less than 0.2% by volume, when held for 96 hours in an atmosphere of 95% relative humidity at 49°C.

Alkalinity - pH9, slightly alkaline (pH7 is neutral)



78 Tallyho Street Rotorua
0800 35 3000
sales@ciinsulation.co.nz