Technical Data Sheet

FI 22 General Purpose and Ductwrap Rolls

Insulation Blanket for Mechanical Services

Product description and typical applications

FI 22 General Purpose and Ductwrap are a light weight, flexible insulation blanket designed for external lagging of sheetmetal ductwork and low to medium temperature industrial equipment and appliances. It is used for applications such as air conditioning ductwork, hot water tanks, and as an effective energy saver on process vessels operating up to 340°C. It is sufficiently flexible to wrap around sharp angles and small radii with sufficient compressive strength to maintain thickness.

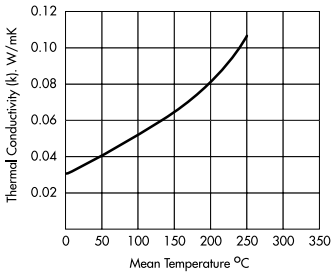
Physical characteristics

Material R-value	0.7	1.1	1.2	1.5	2.0
Thickness (mm)	25	38	41	50	75
Roll Dimensions (mm)*	15m x 1200	15m x 1200	18m x 1200	15m x 1200	7.5m x 1200
Density (kg/m3)	22	22	22	22	22
Mass/Unit Area (kg/m2)	0.6	0.8	0.9	1.1	1.7

*Standard vapour barrier foil laminate facing : Sisalation® Facing Foil Heavy Duty (450).

Thermal conductivity

The R-value of FI 22 General Purpose and Ductwrap is determined in accordance with AS/NZS 4859.1. The thermal conductivity of FI 22 General Purpose and Ductwrap at a mean temperature* 23ºC is 0.035 (at 20ºC it is 0.034) W/mK when tested in accordance with ASTM C177. Values of thermal conductivity may be obtained from the following graph.

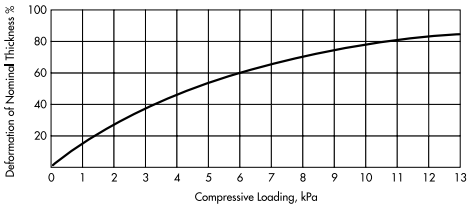


*Mean Temperature = $\frac{T1 + T2}{2}$

Where T1 = temperature of hot side of insulation (ºC)
Where T2 = temperature of cool side of insulation (ºC)

Compressive strength

Even after prolonged storage under compression FI 22 General Purpose and Ductwrap has excellent resilience.



Maximum service temperature

The maximum service temperature for FI 22 General Purpose and Ductwrap is 340ºC. However, where a facing is applied to the insulation, the maximum temperature of the outside surface should be maintained below 70ºC.

Green Star compliant

Fletcher Insulation® is committed to providing environmentally sustainable products. Fletcher Insulation products have Zero Ozone Depleting Potential in both manufacture and composition, complying with the GreenStar Insulant ODP Emissions credit requirement. Air quality is maintained with total Volitile Organic Compound (VOC) emissions below quantifiable levels.

AS/NZS 4859.1: 2002 - Including Amendment 1 Materials for the Thermal Insulation of Buildings

FI 22 General Purpose and Ductwrap Rolls comply with the Energy Efficiency provisions of the BCA for all types of thermal insulation to be certified by a NATA accredited organisation.

Quality Management • ISO 9001

Global-Mark.com.au®

ZERO OZONE DEPLETING POTENTIAL

Fletcher® Insulation

We safely deliver extraordinary value to our customers

AS1530.1 Test for combustibility of materials

Testing conducted by CSIRO in accordance with AS1530 Part 1 concluded that General Purpose rolls are non-combustible.

AS1530.3 Early fire hazard properties of materials

FI 22 General Purpose and Ductwrap exhibits the following characteristics when tested in accordance with AS1530 Part 3.

Ignitability Index	0
Spread of Flame Index	0
Heat Evolved Index	0
Smoke Developed Index	0-1

Acoustic performance

Ductwrap has the following sound absorption coefficients when tested in accordance with AS ISO 354 – 2006:

Thickness mm	Facing	Sound absorption coefficients αs (reverberation) at frequencies (Hz) of:						
		125	250	500	1000	2000	4000	NRC
38	Sisalation® HD facing foil	0.25	0.80	1.00	0.35	0.15	0.10	0.60
50	Sisalation® HD facing foil	0.35	1.00	0.85	0.35	0.15	0.05	0.60

Moisture Absorption

Tested in an atmosphere of 65% relative humidity at 20°C in accordance with British Standard 2972. The moisture content of FI 22 General Purpose and Ductwrap is less than 0.1% by volume.

Alkalinity

FI 22 General Purpose and Ductwrap will not support the corrosion of steel. When test in accordance with British Standard 3958 FI 22 General Purpose and Ductwrap products are slightly alkaline, pH9 (neutral is pH7).

General installation advice

- FI 22 General Purpose and Ductwrap insulation can be cut with a sharp knife. Cutting with power tools is not recommended.
- FI 22 General Purpose and Ductwrap can be fixed to the external face of ductwork or similar surfaces by impaling on spotwelded metal pins faced to the outside face of the duct at 300-450mm centres in both directions with minimum of two rows per side of duct.
- Where a vapour barrier is necessary, e.g. on cold ducting, the insulation can be faced with Heavy Duty Sisalation® 450 and then wrapped around the vessel or duct. All joins should be sealed with Fletcher Insulation Vapastop® 883 Reinforced Foil Tape.

Specification notes

State the following:

- Product name - Fletcher Insulation® FI 22 General Purpose and Ductwrap
- Thickness and thermal performance
- Type of facing if required (eg Fletcher Insulation® Sisalation® Heavy Duty 450).

made from recycled materials

The production of environmentally sustainable FBS-1 Glasswool Bio-soluble Insulation® utilizes approximately 80% recycled waste glass.

✓Low Allergen

Low Allergen content with the ability to moderate temperature changes.

FBS-1 GLASS WOOL BIO-SOLUBLE INSULATION

Fletcher Insulation® glasswool products are manufactured from FBS-1 Glasswool Bio-soluble Insulation®. FBS-1 Glasswool Bio-soluble Insulation® is not classified as hazardous according to the criteria of the Australian Safety and Compensation Council (formerly NOHSC), Approved Criteria for Classifying Hazardous Substances (NOHSC: 1008) 3rd Edition. Fletcher Insulation glasswool is classified as safe to use, refer to our MSDS.

made™ and proud of it

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Fletcher® Insulation

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