

TECHNICAL DATA SHEET

FI22 GENERAL PURPOSE INSULATION BLANKET FOR MECHANICAL SERVICES

AS/NZS 4859.1:2002
COMPLIANT



Product description and typical applications

FI22 General Purpose is a lightweight, flexible insulation blanket designed for the external lagging of sheetmetal ductwork as well as low to medium temperature industrial equipment and appliances. FI22 General Purpose insulation is typically suited for use in applications such as air-conditioning ductwork, hot water tanks, and as an effective energy saving material on process vessels operating up to 340°C. The glasswool blanket is sufficiently flexible to wrap around sharp angles and small radii with sufficient compressive strength to maintain its thickness.

Physical characteristics

Material R-value m ² K/W	Nominal thickness mm	Roll dimensions	Density kg/m ³	Mass/unit area kg/m ²
R0.7	25	1200mm x 15m	22	0.6
R1.1	38	1200mm x 15m	22	0.8
R1.2	41	1200mm x 18m	22	0.9
R1.5	50	1200mm x 18m	22	1.1
R2.0	75	1200mm x 7.5m	22	1.7

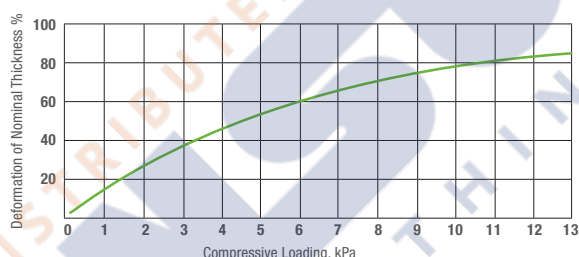
Note: FI22 General Purpose insulation may be supplied unfaced or with a Sisalation® Heavy Duty (HD) vapour barrier facing laminate at 1350mm or 1500mm widths.

Thermal performance

FI22 General Purpose complies with the requirements of AS/NZS 4859.1:2002 including Amendment 1.

Compressive strength

FI22 General Purpose has excellent compressive strength and resilience to allow for full recovery following compression. Deformation under compression loading is illustrated in the graph below.



Acoustic performance

FI22 General Purpose achieves the following sound absorption coefficients when tested in accordance with AS ISO 354 - 2006:

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



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Early fire hazard properties

FI22 General Purpose achieves the following results when tested in accordance with AS1530.3-1999:

	Unfaced	Sisalation® HD Facing
Ignitability Index	0	0
Spread of Flame Index	0	0
Heat Evolved Index	0	0
Smoke Developed Index	0-1	2

Maximum service temperature

Unfaced FI22 General Purpose is manufactured for use at a maximum service temperature of 340°C. If a Sisalation® Heavy Duty (HD) laminate is adhered to the blanket, the maximum service temperature shall not exceed 70°C. When used in conjunction with flexible ductwork, the temperature tolerance of the core and sleeve must be considered as these components will limit the temperature tolerance.

Moisture absorption

FI22 General Purpose absorbs less than 0.2% moisture by volume when exposed to environmental conditions of 50°C and 95% relative humidity for four days.

Alkalinity

When tested in accordance with British Standard 3958, Fletcher Insulation™ glasswool products receive a rating of pH9 (pH7 is neutral). They will not promote or accelerate the corrosion of steel or galvanised steel studs provided they are protected from external contamination.

Safe to use

FI22 General Purpose is manufactured from FBS-1 Glasswool Bio-Soluble Insulation®. FBS-1 Glasswool Bio-Soluble Insulation® is safe to use and meets the criteria of the Australian Safety and Compensation Council (formerly NOHSC) to be classified as non-hazardous. Fletcher Insulation™ glasswool can be used with confidence in any residential, commercial or industrial application.

Green Star compliant

Fletcher Insulation avoids the use of Ozone Depleting Potential (ODP) substances in the manufacture or composition of its FBS-1 Glasswool Bio-Soluble Insulation® and Sisalation® reflective foil products.

The use of FI22 General Purpose guarantees the use of Zero ODP insulation while also ensuring that no harmful levels of Volatile Organic Compounds (VOC's) are released. This allows the incorporation of environmentally preferable insulation whilst also maintaining indoor air quality.

Specification notes

The insulation material shall be Fletcher Insulation FI22 General Purpose with a Material R-value of R _____ m² K/W (specify Material R-value) at a nominal thickness of _____ mm (specify nominal thickness).

Where a vapour barrier laminate is to be adhered to the blanket, the specification shall state 'incorporating a Sisalation® HD laminate _____ mm wide' (specify 1350mm or 1500mm width).

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