

FI 32 Semi-rigid rolls and sheets

All purpose mechanical equipment and air-conditioning duct insulation

Product description and typical applications

FI 32 Semi-rigid glasswool is available in rolls or sheets making it suitable for a large range of industrial and commercial insulation applications. Its excellent thermal and acoustic properties make it ideal for lining sheet metal ductwork. Other recommended uses for Semi-rigid glasswool include storage tanks, process vessels, appliance cabinets, electrostatic precipitators, plant rooms and the manufacture of acoustic baffles. The product can accommodate both flat and curved surfaces. Semi-rigid glasswool is also ideal for use in curtain walling, spandrel panels and under concrete slab roofs to lessen heat load in building structures.

Physical characteristics

Material R-value (m ² k/W)	0.4	0.8	1.2	1.5	2.3	3.0
Thickness (mm)	13	25	38	50	75	100
Sheet Dimensions (mm)*	2400 x 1200	2400 x 1200 2400 x 1500	2400 x 1200	2400 x 1200 2400 x 1500	2400 x 1200	2400 x 1200
Roll Dimensions (mm)*		15m x 1200 12m x 1500	10m x 1500 8m x 1500	7.5m x 1200 8m x 1500	7.5m x 1200	
Density (kg/m ³)	32	32	32	32	32	32
Mass/Unit Area (kg/m ²)	0.4	0.8	1.2	1.6	2.4	3.2

*Not all sizes may be held in stock. Please contact your local Fletcher Insulation™ Sales Office for details.

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

FI 32 Semi-Rigid Rolls and Sheets comply with the Energy Efficiency provisions of the BCA for all types of thermal insulation to be certified by a NATA accredited organisation.



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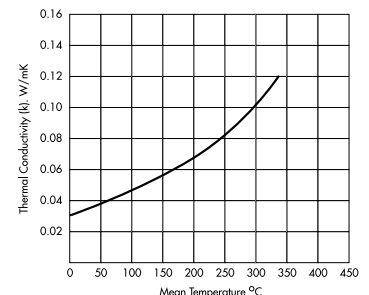
Thermal conductivity

The R-value of Semi-rigid glasswool is determined in accordance with AS/NZS 4859.1. The thermal conductivity of Semi-rigid glasswool at a mean temperature* 23°C is 0.033 (at 20°C it is 0.032 W/mK) when tested in accordance with ASTM C177. Values of thermal conductivity may be obtained from the following graph.

$$\text{*Mean Temperature} = \frac{T_1 + T_2}{2}$$

Where T1 = temperature of hot side of insulation (°C)

Where T2 = temperature of cool side of insulation (°C)



Heat transfer calculation service

Given the actual service temperature and the required surface temperature, the appropriate insulation thickness can be calculated by staff at Fletcher Insulation. Fletcher Insulation can also assist to determine the optimum insulation thickness quickly and accurately, in an easy-to-read format.

Maximum service temperature

The maximum service temperature for Semi-rigid glasswool is 340°C. Where facings are applied, the temperature tolerance of the facing adhesive limits the surface temperature to 70°C. (The appropriate insulation thickness can be used to limit surface temperature to 70°C).

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 Volatile Organic Compound (VOC) emissions below quantifiable levels.

AS1530.3 Early fire hazard properties of materials

Semi-rigid glasswool exhibit the following characteristics when tested in accordance with AS1530 Part 3.

	Plain	Black Matt Tissue Faced	Sisalation® Heavy Duty Faced	Vapastop Faced
Ignitability Index	0	0	0	0
Spread of Flame Index	0	0	0	0
Heat Evolved Index	0	0	0	0
Smoke Developed Index	0-1	2	3	0-1

Moisture absorption

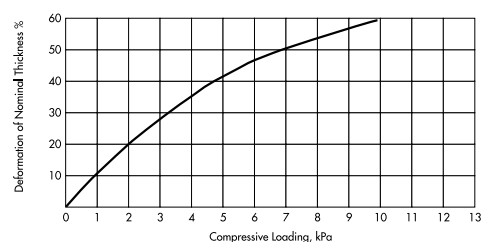
Tested in an atmosphere of 65% relative humidity at 20°C in accordance with British Standard 2972. The moisture content of Semi-Rigid glasswool is less than 0.1% by volume.

Alkalinity

Semi-rigid glasswool will not support the corrosion of steel. When test in accordance with British Standard 3958 Semi-rigid glasswool products are slightly alkaline, pH9 (neutral is pH7).

Compressive strength

Semi-rigid glasswool has excellent compressive strength and resilience and recovers to its nominal thickness after compression. Deformation under compression loading is shown on the graph.



Acoustic performance

Semi- Rigid Glasswool has the following sound absorption coefficients when tested in accordance with AS ISO 354 - 2006.

Thickness (mm)	Facing	Sound absorption coefficients α_s (reverberation) at frequencies (Hz) of:					
		125	250	500	1000	2000	NRC
38	Nil	0.12	0.43	0.90	1.06	0.99	0.85
50	Nil	0.19	0.68	1.09	1.16	1.02	1.00
75	Nil	0.29	1.08	1.23	1.03	0.99	1.10
100	Nil	0.50	1.26	1.21	1.08	1.03	1.15
38	Black Durasorb	0.15	0.55	1.11	1.14	1.05	0.95
50	Black Durasorb	0.22	0.82	1.26	1.18	1.04	1.10
75	Black Durasorb	0.32	1.13	1.18	1.07	0.98	1.10
50	HD Perf.	0.19	0.68	1.07	1.05	1.01	0.95

Specification notes

State the following:

- Product name - Fletcher Insulation FI 32 Semi-rigid glasswool
- Thickness, thermal and acoustic performance
- Fixing method preferred (eg. Fletcher Insulation Insul Clips)
- Type of facing if required (eg Fletcher Insulation Heavy Duty Sisalation®).

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NOTE: Fletcher Insulation Pty. Limited. reserves the right to change product specifications without prior notification. Information in this Publication and otherwise supplied to users as to the subject product is based on our general experience and is given in good faith, but Because of the many particular factors which are outside our knowledge and control and affect the use of products, no warranty is given Or is to be implied with respect to either such information or the product itself, in particular the suitability of the product for any particular purpose. The purchaser should independently determine the suitability of the product for the intended application.

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The production of environmentally sustainable FBS-1 Glasswool Bio-Soluble Insulation utilizes approximately 70% recycled waste glass.



Low Allergen content with the ability to moderate temperature changes.



Fletcher Insulation glasswool products are manufactured from FBS-1 Bio-Soluble Glass Wool™. FBS-1 Bio-Soluble Glass Wool™ 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.



Fletcher Insulation