Technical Data Sheet

FI 48 Hi-Temp™

Lagging of Mechanical Equipment up to 480°C

Product Description and Typical Applications

FI 48 Hi-Temp™ glasswool is available in rolls and sheets designed for heavy duty industrial applications such as boilers, heat exchangers, process vessels and large bore pipes - operating at temperatures up to 480°C. The conformability of FI 48 Hi-Temp glasswool makes it ideal for use on curved or irregular surfaces as well as on flat surfaces where good compressive strength is required.

Physical Characteristics

Thickness (mm)	25	38	50	75
Dimensions (mm)* - Rolls	15m x 1200	7.5m x 1200	7.5m x 1200	
- Sheets		2400 x 1200	2400 x 1200	2400 x 1200
Nominal R-value	0.8	1.2	1.5	2.3
Density (kg/m³)	48	48	48	48
Mass/Unit Area (kg/m²)	1.2	1.8	2.4	3.6

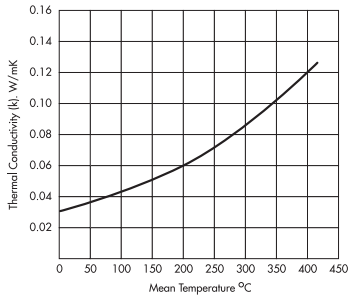
*Other sizes are available, subject to minimum order quantites.

Thermal Conductivity

The thermal conductivity of FI 48 Hi-Temp glasswool at a mean temperature* of 23°C is 0.032 W/mK (at 20°C it is 0.031 W/mK) when tested in accordance with ASTM C177. Values of thermal conductivity may be obtained from the graph opposite:

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

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 FI 48 Hi-Temp glasswool is 480°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 Volitile Organic Compound (VOC) emissions below quantifiable levels.

Quality Management • ISO 9001
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ZERO OZONE DEPLETING POTENTIAL

Fletcher™ Insulation

We safely deliver extraordinary value to our customers

AS1530.3 Early Fire Hazard Properties of Materials

FI 48 Hi-Temp glasswool exhibit 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

Moisture Absorption

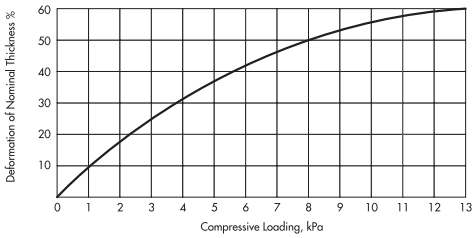
Tested in an atmosphere of 65% relative humidity at 20°C in accordance with British Standard 2972. The moisture content of Hi-Temp Glasswool is less than 0.1% by volume.

Alkalinity

FI 48 Hi-Temp glasswool will not support the corrosion of steel. When test in accordance with British Standard 3958 FI 48 Hi-Temp glasswool products are slightly alkaline, pH9 (neutral is pH7).

Compressive Strength

FI 48 Hi-Temp glasswool has excellent compressive strength and resilience and recovers to its nominal thickness after compression. Deformation under compression loading is shown on the graph.



Flexibility

FI 48 Hi-Temp glasswool blanket is sufficiently flexible to be wrapped around curved surfaces as follows:-

Insulation Thickness	Minimum Diameter of Curvature
25mm	150mm
38mm	150mm
50mm	200mm
75mm	600mm

Suitability for Stainless Steel

Under certain conditions, the presence of soluble chlorides may cause stress corrosion and the cracking of some stainless steels. FI 48 Hi-Temp glasswool has been tested to ASTM C795, 'Standard Specification for Wicking-Type Thermal Insulation for use over Austenitic Stainless Steel'. Tests conducted by Lehigh Laboratories Inc., USA. FI 48 Hi-Temp glasswool meets the BSA requirements and is thus considered suitable for use in these applications.

Specification Notes

State the following:
- Product name - Fletcher Insulation FI 48 Hi-Temp Glasswool
- Thickness and thermal performance
- Fixing method preferred (eg. Fletcher Insulation Insul Clips)
- Type of facing if required (eg Fletcher Insulation Heavy Duty Sisalation®).

made from recycled materials

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

made™ and proud of it

Freecall SALES **1300 65 44 44** Technical Services **1800 000 878**
Email **info@insulation.com.au** Web **www.insulation.com.au**

Fletcher™ Insulation

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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