

FI48 Rigid Glasswool Insulation

Acoustic HVAC and equipment insulation

Description

FI48 Rigid Insulation is manufactured from up to 80% recycled glass using a thermoset resin, producing fine non-combustible fibres which form a high density insulation board or blanket. A foil or fabric facing material can be applied to one side in applications where increased acoustic performance or when indoor air quality hygiene and/or mechanical cleaning capabilities are required.

Applications

FI48 Rigid Glasswool sheets and acoustic blanket provide an excellent balance of both thermal and acoustic insulation properties, which render them suitable for a broad range of industrial applications. They are particularly suited to the mechanical services industry where design requirements dictate optimum performance for higher thermal performance than standard lower density insulation products can provide. These applications include internally lined air conditioning ducts, risers, silencers, plant room and equipment casings. FI48 Rigid Glasswool is also suitable in acoustic panel applications. In such applications, FI48 Rigid Glasswool sheets and acoustic blanket offer the additional benefits of high compressive strength and clean, accurate fabrication.

Features and benefits

High density performance	→	Delivers superior sound absorption and attenuation.
High compressive strength	→	Reduction in overall weight and stress on building system and less product damage during installation.
Biosoluble material	→	Safe to use.

Product data

Material R-value m ² K/W	Thickness mm	Sheet width mm	Sheet length mm	Roll width mm	Roll length m	Density kg/m ³	Mass/ unit area kg/m ²
R0.8	25	1200	2400	1200	15	48	1.2
R1.2	38	1200	2400	-	-	48	1.8
R1.5	50	1200	2400	1200	7.5	48	2.4
R1.5	50	1500	2400	1500	6	48	2.4
R2.3	75	1200	2400	-	-	48	3.6
R3.0	100	1200	2400	-	-	48	4.8
R3.0	100	1500	2400	-	-	48	4.8

Physical properties

Property	Test method/standard	Result	Unit
Nominal density		48	kg/m ³
Thermal conductivity @23°C	AS/NZS 4859.1	Complies	W/Mk
Thermal resistance @ 23°C	ASTM C518	Complies	m ² K/W

Fire hazard properties

FI48 Rigid Glasswool Sheets and Acoustic Blanket material exhibits the following characteristics when tested in accordance with the following standards:

Property	Test method/standard	Test Results		
		Unfaced	Sisalation® HDP Facing Foil	Black Matt Facing (BMF) Glass Tissue
Combustability	AS 1530.1	Non-combustible		
Early Fire Hazard Indices	AS/NZS 1530.3			
Ignitability Index		0	0	0
Spread of Flame Index		0	0	0
Heat Evolved Index		0	0	0
Smoke Developed Index		1	3	2
Burn Test	UL181.1 (Compliance to AS 4252.2)	-	Complies	Complies

Acoustic performance

FI48 Rigid Insulation achieves the following sound absorption coefficients when tested in accordance with AS ISO 354:

Property	Nominal thickness mm	Sound absorption coefficients at frequencies (Hz) of:										NRC	α _w
		100	125	250	500	1000	2000	3150	4000	5000			
Unfaced/Plain	50	0.14	0.16	0.91	1.07	1.08	1.03	1.03	1.09	1.05	1.00	1.00	
HDP	50	0.11	0.19	0.83	1.08	1.10	1.06	1.03	0.99	1.00	1.00	1.00	
BMF	50	0.10	0.16	0.73	1.07	1.10	1.04	1.03	1.02	1.05	1.00	1.00	
Unfaced/Plain	100	0.40	0.68	1.14	1.05	1.05	1.07	1.06	1.09	1.06	1.10	1.00	

Environmental properties

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.

Health and safety

FI48 Rigid Insulation 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.

Technical specification

When specifying, state the following:

The insulation material shall be FI48 Rigid 48kg density Glasswool _____ (specify 'sheets' or 'acoustic blanket').

Supplied by Fletcher Insulation, the insulation material shall be installed in accordance with Fletcher Insulation.

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