

Superior Thermal and Acoustic Insulation

SCM Fiberglass Wool



For Comfort & Energy Saving

Insulation products are used various areas. Within a ducted system, it provides energy efficiency through prevention of heat gain or loss, noise control and condensation prevention.

Heating, Ventilation and Air-Conditioning (HVAC) systems is utilised to enable conditioned air transferred from the plant to the habitable space especially in commercial buildings and other large commercial constructions that require significant air conditioning such as shopping centres, hospitals, convention centre and office block.

HVAC system use an air delivery system that require sheet metal ductwork for the primary runs and flexible ductwork to connect the registers and diffusers in each room. Insulation is applied to the internal and external surfaces of air handling ductwork for several reasons mainly to prevent condensation on the duct surface and to ensure minimum temperature loss during the transit. Internal duct lining is used to absorb the noise/vibration generated by the fans along the duct or through the duct wall.

Insulation of sufficient thickness is crucial to ensure that the temperature of the duct surface does not fall below the dew point of the surrounding air so as to avoid condensation on the duct.

SCM Glasswool Blanket

SCM Insulation's glasswool blankets are manufactured from a unique rotary flame attenuation process incorporating highly resilient, inorganic glass fibres bonded with a thermosetting resin to form a light weight, flexible and resilient insulation material.



Applications - Air-Conditioning

SCM Glasswool Blankets are used as external insulation on commercial industrial and residential heating or air-conditioning ducts. The product is also suitable for application to the interior of rectangular or round sheet metal ducts in areas where temperature, noise/vibration and condensation must be controlled. For warm air duct, it reduces heat loss, increases system efficiency and reduces fuel cost. For air conditioning systems, it allows better temperature control of air conditioned air during distribution, conserves power and helps prevent condensation.

Thermal Conductivity at 24°C (75°F) mean temperature

Density kg/m ³	K-value	
	W/m°C	BTU-in/(hrft ² °F)
16	0.0404	0.28
24	0.0375	0.26
32	0.0346	0.24
48	0.0332	0.23

Thermal Performance

R-value (m ² K/W)	Width(m)	Length(m)
0.62	1.2	20/30
1.24	1.2	15
0.67	1.2	24
1.33	1.2	12
0.72	1.2	20
1.45	1.2	10
0.75	1.2	15
1.50	1.2	7.5

Specifications

SCM Glasswool Blanket Plain / Unfaced

R-value	Thickness(mm)	Width(m)	Length(m)
R0.73	25	1.22	20
R0.75	25	1.22	15
R1.47	50	1.22	10
R1.50	50	1.22	7.5

To achieve nominal stabilised thickness and R-value after installation - 72 hours.

The performance of this product may be reduced if stored for too long in its compressed packaging.

The total R-value depends on installation and may be greater than or less than the R-value of the product.

The R-value represented on the pack is determined at a mean temperature of 23°C.

Description

SCM Glasswool Blankets are manufactured by unique rotary flame attenuation process incorporating highly resilient, inorganic glass fibre, bonded with a thermosetting resin to form a lightweight, flexible and resilient insulation material. It provides excellent thermal insulation qualities and is also an effective acoustical, sound absorption material. It is available unfaced or with a Multi-purpose Foil-Scrim-Kraft (FSK) facing, or with BGT facing. Factory lamination of facing during the manufacturing process assures uniform quality.

Benefits and Features

DURABLE

Poly Glasswool Blankets are non-combustible. Being non-cellular and non-hygroscopic, they do not promote capillary action. In addition, they are resistant to the effect of humidity, aging, corrosion and rust. The resilient glass fibres also resist sagging from vibration.

THERMAL PERFORMANCE

SCM Glasswool Blankets provide for excellent thermal insulation to reduce heat gain or loss through the roofs.

NOISE REDUCTION

Excellent acoustical properties effectively reduce the level of unwanted noise and thus enhance the comfort level of building occupants.

EASY INSTALLATION

SCM Glasswool Blankets are lightweight, easy to handle and enable faster installation and lower labour cost on the field.

ENERGY CONSERVATION

Both thermal and acoustic insulation are essential to the preservation of the environment. Thermal insulation conserves energy by reducing operating cost on mechanical and electrical equipments.

Fire Properties

Glasswool Blankets are non-combustible and are tested in accordance with :

- B. S. 476 : Part 6 Fire propagation
- B. S. 476 : Part 7 Surface spread of flame
- Company with BOMBA Class "O" Certification

R-Value

R-value refers to the thermal resistance of any insulation material. It is the overall ability of an insulation material to resist (retard) heat flow, taking into account both the thermal conductivity (K-value) and the thickness of the insulation material. It is used in calculating overall heat transmission coefficients and is expressed as m^2K/M (metre square Kelvin per Watt)

$$R\text{-Value} = \frac{\text{Insulation material Thickness (metre)}}{\text{Insulation material K-Value (W/m}^2\text{K)}}$$

The higher the R-Value, the higher the insulating power, Higher R-Value are more effective in maximizing your energy savings and comfort.

General Properties

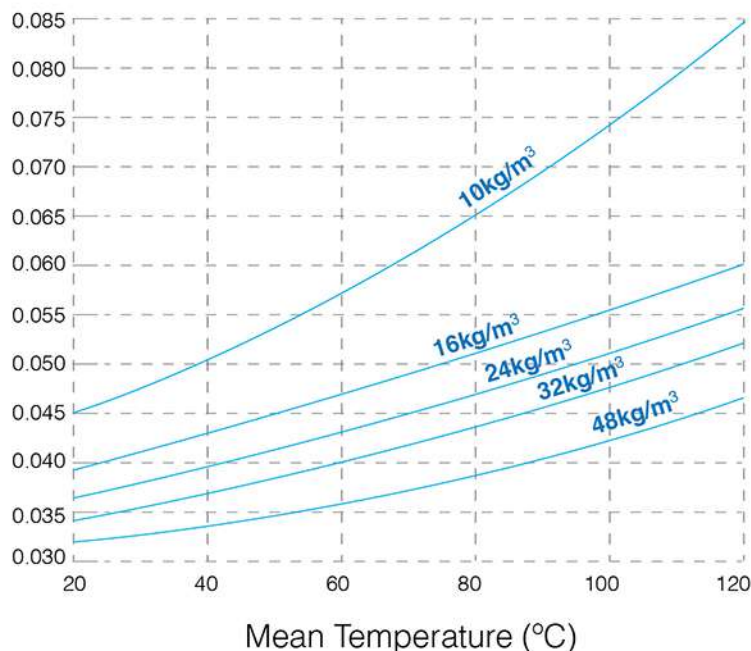
Maximum Service Temperature	
* Unfaced	350°C (662°C)
* Faced	121°C (250°C)
Moisture absorption	Less than 5% by weight (ASTM C665)
Alkalinity	PH9, slightly alkaline
Corrosiveness (with steel, copper or aluminium)	Does not accelerate
Odour	None
Capillarity (after 24 hour)	Negligible
Shrinkage	None
Resistance to fungus and bacteria	Noes not promote

Compressive Strength

SCM Glasswool Blankets have excellent resilience. It will recover to its nominal thickness after prolonged compression.

Thermal Conductivity

Test Method ASTM C177-85



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