

VULCANITE™

ARMOR™

Thermal Insulation





Specifications

Density 40-120kg/m³

Thickness 30-100mm

Width 600/1200mm

Length 2.5-5m

Overview

VULCANITE™ ARMOR™ ROCK WOOL, is made from high quality basalt and dolomite.

It is melted at a temperature higher than 1450 °C or, it is centrifuged at high speed using an international quality grade four-axis centrifuge.

While spraying binder, dustproof oil and water repellent the fibers are collected using a cotton collector by using the pendulum three-dimensional method.

After curing, it is solidified and cut to form different ROCK WOOL products for specifications and uses.

VULCANITE™ ARMOR™ is fully compliant with domestic & internationally recognized standards like ISO, CE, ASTM, SGS and meets various performance testing requirements.

VULCANITE™ ARMOR™ ROCK WOOL holds ISO,CE and A1 certification approval.

Note: Above size are standard sizes, for other size please consult us. The material of the stitched net is galvanized mesh or stainless steel mesh. The common standard is 24# wire diameter with mesh diameter of 1" or 22# wire diameter wire mesh with a mesh diameter of 1".

Installation guidelines

- Cut the wired mat to length, so that the mat fits the pipe with slight pre-stressing. The closing joints must be staggered at an angle of at least 30 degrees to each other.
- The closing joints of the mats (lengthwise and circular) must be wired together.
- The insulation should be finished with a metal (e.g. aluminum) cladding.
- Where necessary, expansion joints are provided to cater for expansion of the pipes.
- Both the lengthwise and circular joints are fastened with sheet-metal screws: hard aluminum or stainless steel 1/2", 8/meter.
- Close the expansion joints with a steel tensioning wire.
- Connections to mountings, head and end caps etc. should be made watertight using a suitable sealant.

Advantages

- Flexible application
- Suitable for high temperature application
- Suitable for the thermal and acoustic insulation
- Suitable for large diameter piping, vessels, ducts
- Available in a wide range of thicknesses



Technical Parameters

Description	Blanket 80	Blanket 100	Blanket 120	Standard
Density	80kg/m ³	100kg/m ³	120kg/m ³	EN1602
Thermal Conductivity				ASTM C335
50°C	0.038W/mK	0.039W/mK	0.030W/mK	
100°C	0.045W/mK	0.045W/mK	0.035W/mK	
150°C	0.053W/mK	0.053W/mK	0.053W/mK	
200°C	0.058W/mK	0.057W/mK	0.057W/mK	
250°C	0.069W/mK	0.066W/mK	0.066W/mK	
300°C	0.081W/mK	0.078W/mK	0.078W/mK	
350°C	0.094W/mK	0.089W/mK	0.089W/mK	
Hot Surface Performance	650°C	700°C	750°C	ASTM C411 / ASTM C447
Linear shrinkage, max % at maximum use temperature	0.40%	3.5%	4%	ASTM C356
Surface Burning Characteristic				
FSI	0	0	0	ASTM E84
SD	20	20	20	
Water Absorption (partial immersion)	<1kg/m ²	<1kg/m ²	<1kg/m ²	EN1609 / BS 2972
Water Vapor Sorption		≤0.4% by weight	≤0.2% by weight	ASTM C1104
Corrosion to stainless steel	Conforms to the stainless steel corrosion specification as per ASTM C692 and C871 test method			ASTM C692 / ASTM C795
Health & Safety				
Odor Emission	No perceptible odour present			ASTM C665-06
Fungi Resistance	Does not encourage growth of fungi			ASTM C1338
Compliance to Standard	ASTM C592 "Standard specification for mineral fibre blanket insulation pipe insulation" Type I & III			
Chloride Ion Content	≤5PPM			

Note: The technical data contained herein is derived from controlled laboratory testing and reflects the product's demonstrated performance under ideal conditions. Such data is provided for guidance in the proper application of the product and should not be construed as constituting definitive assurance of performance in all operational circumstances. The supplier expresses confidence in the quality and reliability of the product when it is utilised correctly and within appropriate operating environments. In the event that users are uncertain whether their operating conditions align with the recommended parameters set out in the technical data, they are advised to conduct independent testing.