

KM MW Mineral Wool, 80 kg/m³

Non Combustible, Acoustic & Thermal Insulation



Material Description

KM MW Mineral Wool Insulation Slab are medium dense products for Fire Protection System, Thermal Insulation and Acoustic Control in buildings.

KM MW Mineral Wool is manufactured using our exclusive RCS (Rapid Centrifugal Spinning) technology, which produces a very thin and even fiber structure, bonded by thermosetting resins & water repellent.

In addition, application of the Pendulum System forms thinner and more even air layers that effectively block off heat flow.

KM MW Mineral is defined as a hydrophobic material, with inherent water-repellant properties mixed with the fibers during its production process. As such, KM MW Mineral is non-hygroscopic material, moisture has no influence on its thermal and structural performance. At the same time, there is no influence on its durability either, so its ability to withstand wear and pressure remains unaffected.

KM MW Mineral Wool Insulation Slab is supplied in semi-rigid sheets for applications, with ease of cutting without breaking easily.

Key Performance Properties

- Non- Combustible
- Lightweight, highly durable insulation product
- Performance is not adversely affected from moisture contact
- Fungi Resistant
- Vermin Resistant
- Vapor Permeable
- Zero HCHO, TVOC
- Zero Ozone Depletion Potential
- Zero Global Warming Potential
- Asbestos- Free

~ Please consult our technical services for any enquiries and application concerns.



Technical Performance

Physical Properties, nominal	
Nominal Density [kg / m ³]	80
Nominal Density [lb / ft ³]	4.00
Thermal Conductivity @ 20°C mean temp.	0.0365 W/m.K 0.0314 Wcal/mhk
Fire Performance [BS 476 Part 4]	Non – Combustible:
Moisture Resistance	Absorb ≤ 0.5% by mass
TVOC emission [ISO 16000-9: 2006]	0.01 mg/m ³
Formaldehyde Emission [ISO 16000-9: 2006; NIOSH 2016: 2016]	Not Detected
Compliance	Tested and Proven in Fire Protection Systems in TUV SUD PSB and SIRIM. KM MW conforms to BS 4958 : Part 5 'Specification for bonded man-made mineral fibre slabs' and can be used to satisfy BS 5422 'Thermal insulating materials on pipes, ductwork and equipment'. KM MW conforms to ASTM C 612 'Standard Specification for Mineral Fiber Block and Board Thermal Insulation'



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Sound Absorption

KM MW Mineral Wool is made out of thin and even fibers that form noise-absorbing interconnected microscopic pores. As sound pressure travels through these pores, the pores negate this energy by converting it into friction. When used in a standard Stud-Wall, or between floors, can increase the sound insulation performance by 3 to 5 dB. For fitting under Roof Constructions, KM MW Mineral Wool provides a reduction in reverberant noise levels of up to 10 dB.

Density	Thickness	Sound Absorption Coefficients, α_w , Hz						
kg/m ³	(mm)	125	250	500	1000	2000	4000	NRC
80	50	0.35	0.90	1.05	1.05	1.00	1.10	1.05

*Values given are for design approximations only; production and test variabilities will alter results. Specific designs should be evaluated in end-use configurations. All tests were conducted in accordance with ISO 354: 2003 "Measurement of sound absorption in a reverberation room"; ISO 11654: 1997 "Sound absorbers for use in buildings – Rating of sound absorption".

Corrosion Resistance Performance

(ASTM C 795; USAEC Regulation Compliance)

KM MW Mineral Wool is made from chemically stable inorganic materials. Because of this, KM MW Mineral Wool is strong against acid and alkaline chemicals and against degradation from weathering.

Fire Resistance

KM MW Mineral Wool is non- combustible when tested in accordance with British Standard 476: Part 4: 1970 "Fire Test on Building Materials and Structures – Non- Combustibility Test for Materials".

Maximum Service Temperature

- Continuous Safe Operating Temperature: Up to 1100°C
- Intermittent Temperature [Up to 4-Hours]: 1200°C max.

Standard Sizes & Packaging

- Standard Thickness: 25, 50, 75 100 mm nominal.
- Standard Size: Width 0.6-M x L 1.2-M
- Standard packaging is shrink-wrapped polythene.
- Other sizes are available to order but may be subject to a minimum order quantity.

Available Facings

KM MW Mineral Wool is available as either un-faced or can be applied with FSK [Foil Scrim Kraft], black Tissue Felt, wire mesh, silver foil, metal lath, etc.

Applications

KM MW Mineral Wool Insulation Slab provides superior thermal and acoustic performance when installed under metal deck roofing, ACMV duct, partition wall assembly, as ETFE wall assembly, external wall cladding insulation, etc

Can be used to insulate concrete soffits, external walls, spandrel panels, and cavity partitions, and as sound absorbent lining of plant rooms and machinery enclosures. The choice of product depends on whether a flexible or rigid product is more suitable for the particular application.

KM MW Mineral Wool Insulation Slab may also be used as the resilient layer in a floating floor. The natural resilience of KM MW Mineral wool absorbs impact which would otherwise be transmitted through the building structure.