

PRODUCT DESCRIPTION

Refractory mortar mixes (RMM™) is a pre-prepared mixture with high heat resistance between 1200 to 1700 degrees celsius, made up of calcium alumina, magnesium, and silica in different proportions. due to the variation in composition ratios and types of raw materials, this mortar has a high degree of diversity in mechanical and resistance properties against thermal shock, depending on the type of environment and different operating conditions. therefore, before using this product, it is recommended to consider the desired temperature for performance, the type of environment, and the intended use as important factors in selecting the appropriate refractory mortar mixes. the bond type in refractory mortar mixes (RMM™) can be either heat-setting or hydraulic depending on the raw materials used. in addition to its high resistance to thermal shocks and chemical inertness, this mortar has low shrinkage and high adhesive strength. the volume of refractory mortar mixes (RMM™) is stable under any conditions and does not crack due to drying. the grading and physical properties of refractory mortar mixes (RMM™) are designed for implementation by methods such as immersion, troweling, and casting. this product is used as a binder for bonding, filling joints, and implementing fireproof shaped parts and products such as fireproof blocks and bricks that are facing thermal challenges.

PRODUCT FEATURES

- Unmatched resilience against thermal shocks
- Exceptional adhesive potency
- Enduring stability and durability
- Robust bonding and adhesion to surfaces
- Imperviousness to acid
- Unyielding resistance against corrosive chemicals
- Resilience against temperature fluctuations
- Remarkable wear-resistance
- Effortless application with no need for intricate tools
- Engineered for effortless application through troweling
- Rapid setting capabilities

PRODUCT USES

Refractory mortar mixes (RMM™) are widely used in the following industries:

- Execution of non-combustible brick or terracotta in high-temperature applications
- Use of mortar for both interior and exterior applications
- Suitable for constructing chimneys, barbecues, and flues
- Outdoor fireplaces, kilns, and fire pits
- Adjustment of terracotta flues
- Mortaring of walls and surfaces of smoke chambers.



Refractory Mortar Mixes-RMM™

HOW TO USE

SURFACE PREPARATION

To apply refractory mortar mixes (RMM™), the targeted surface must be cleared of any contaminants or impurities, including rust, dust, loose stones, and damaged areas. Tools such as hammers, wire brushes, sandblasting machines, or air blowers can be employed for this purpose. It is also advisable to moisten the surface before applying RMM™ refractory mortar. This ensures that the mortar's performance and adhesion are optimized to the fullest extent.

MIXING

Refractory mortar mixes (RMM™) can be mixed either mechanically or manually. To prepare Refractory mortar, it is sufficient to take the required amount out of the bag and add it to a container or mixer. After mixing the dry ingredients, water should be added to the mixture in the specified ratio mentioned in the mechanical specifications table and mixed thoroughly. The refractory mixture should be mixed well for 3 minutes to reach a suitable consistency for troweling. In this condition, the RMM™ refractory mortar is ready to be used.

APPLICATION

The prepared RMM™ refractory mortar should be applied to the desired surface uniformly and at a predetermined thickness using a trowel. RMM™ can provide a working time of 60 minutes at a temperature of 20 degrees Celsius. The refractory mortar mixes (RMM™) should be allowed to set and reach final grip for a minimum of 24 hours. After the mortar has hardened, it can be utilized.

LIMITATIONS

- The water used for preparing refractory mortar mixes (RMM™) should be clean and potable, free from impurities.
- avoid adding water beyond the permissible limit specified in the product guidelines.
- to prevent lumps in the mortar, mix the components carefully.
- the best method for mixing the mortar is either by hand or with a mixer.
- After using tools for implementation or installation of refractory mortar mixes (RMM™), they should be cleaned with clean water to remove impurities. for cleaning hardened materials, mechanical methods should be used.

TECHNICAL DATA

	RRM™90	RRM™85	RRM™75	RRM™60	RRM™45
	Silica	Alumina, Chromium	Alumina, Bauxite	Bauxite	Fireclay
Maximum Service Temperature (°C)	1600	1700	1600	1580	1500
Installation Method	troweling				
Grain Size (mm)	≤0.5				
Required Water Content (%)	38 - 42	24 - 28	24 - 28	28 - 30	38 - 42
Al₂O₃	12.4	83.5	73	62	42.6
SiO₂	84.1	9.1	20	31.2	52.9
Fe₂O₃	0.8	1.7	2.3	2.2	2.1
Cr₂O₃	---	4.8	---	---	---
TiO₂	1	1.38	3.2	2.7	1.9
CaO	0.3	0.34	0.6	0.5	0.5
Alkalies	1.3	---	---	---	---

STORAGE

Refractory mortar mixes (RMM™) should be stored in a covered and dry warehouse at a temperature range of 16 to 27 degrees celsius, in bags provided by the manufacturer. In addition, stacking a large number of pallets on top of each other should be avoided, as it can cause the mortar to harden in its dry state. During transportation, throwing bags or packets containing refractory mortar mixes should be prevented, as it may cause particle size distribution to be disturbed. Under ideal conditions, RMM™ can be stored for up to 12 months.

CAUTION

Users should observe good industrial and personal hygiene. The use of hardhats, proper footwear, and ear protection should be evaluated on a site-by-site basis. In situations where installation is occurring in water, flotation devices should be utilized. In general, installers of products should wear long-sleeve shirts and pants and use safety glasses/goggles and gloves to minimize skin contact. Measures such as washing after handling the material and before eating, drinking, and/or smoking, as well as routinely washing work clothing and protective equipment to remove contaminants, should be employed.

CLEANUP

Dispose of material in accordance with local disposal regulations. Uncured material can be removed with approved solvents. Cured materials can only be removed mechanically. In fact, the thinner can not completely clean the equipment. Therefore, acetone or ketone solution can be used to clean equipment.

FIRST AID

- In case of contact with skin, wash thoroughly with soap and water
- In case of contact with eyes, rinse immediately with plenty of water.
- Get out of space or use oxygen capsules if you have trouble breathing.
- Wash clothing before reuse

DISCLAIMER OF LIABILITY

AFZIR, LLC warrants its products to be free from manufacturing defects. Buyer determines suitability of product for use and assumes all risks. Buyer's sole remedy shall be limited to replacement of product. Any claim for breach of this warranty must be brought within six months of the date of purchase.

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The Buyer, by accepting the products described herein, agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production.