



COLMEF®
BUILDING BETTER

Malta Refrattaria

TECHNICAL REFRACTORY MORTAR WITH RAPID SETTING AND HYDRATION, HIGH HEAT RESISTANCE, GUARANTEED FOR ASSEMBLING REFRACTORY ELEMENTS. EXCELLENT FOR ALL CIVIL WORKS REQUIRED TO WITHSTAND HEAT. MEDIUM ALUMINA CONTENT.



TECHNICAL DATA SHEET - REVISION 01/2023

DESCRIPTION

MALTA REFRATTARIA is a technical refractory mortar with rapid setting and hydration, composed of calcium aluminates, clays, chamotte and various additives. When mixed with water, it becomes an easy-to-work thixotropic mortar with high adhesion to the substrate. Once hardened, it provides excellent mechanical strength and high heat resistance. MALTA REFRATTARIA sets in 1 hour and hardens in 6 hours. It contains no asbestos fibres or other products considered harmful to the applicator's health.

FIELDS OF APPLICATION

MALTA REFRATTARIA is used for work requiring high resistance to high temperatures, such as masonry with refractory bricks and prefabricated refractory elements for assembling fireplaces, ovens, flues, hoods, etc. Its special composition provides excellent mechanical strength even after short curing times. It can be applied to all cement-based substrates commonly used in construction.

SUBSTRATE PREPARATION

The substrate must be clean, sound and compact. Friable parts and greasy substances must be completely removed. Wet the substrate, the bricks and all parts to be joined with water to saturation, removing any standing water at the time of application.

APPLICATION

To prepare the mix, pour about 2.5 litres of clean water into a container and slowly add one 10 kg bag of MALTA REFRATTARIA while mechanically mixing. Mix thoroughly for a few minutes until a smooth, lump-free mortar is obtained. Prepare only the amount of mortar needed for about 30 minutes of work. Apply the mortar manually with a trowel, at a minimum thickness of 1 cm and a maximum of 4 cm, and position the bricks or other parts to be joined. Remove excess mortar before it hardens. During hydration, it is advisable to wet the parts treated with the mortar generously with water to prevent cracking caused by excessively rapid hydration. Gradually light the first fire after at least 2 weeks, avoiding direct contact with the flame. Repeat this operation at least 2 or 3 times. At the end of this procedure, the installation will be fully operational.

COVERAGE

19 kg/L.

RECOMMENDATIONS

- ♦ MALTA REFRATTARIA is a cement-based product and, as such, all precautions required for proper curing must be observed. The surface must be protected against excessively rapid evaporation.
- ♦ Temperature variations cause increases or decreases in the product's initial and final setting times.
- ♦ It is important not to remix the product once it has started to set: it would lose all its chemical and physical properties.

PACKAGING

MALTA REFRATTARIA is supplied in 10 kg multi-layer paper bags on 1500 kg pallets. Store the product in dry areas in its original, tightly closed packaging. Under these conditions, its stability is at least 12 months.

SAFETY INSTRUCTIONS

Take all normal precautions and wear personal protective equipment (gloves, goggles) to prevent possible skin sensitisation and irritation caused by contact with cement. For further information on safe use of the product, refer to the relevant Safety Data Sheet.

SPECIFICATION

Assembly of refractory elements using a technical refractory mortar with rapid setting and hydration and high heat resistance, such as MALTA REFRATTARIA by Colmef Srl, guaranteed for all civil works required to withstand heat.

TECHNICAL DATA

Appearance:	powder
Colour:	grey
Specific gravity (g/cm³):	1,30
Solid content (%):	100
Mixing ratio:	~ 2,5 litres of water per 10 kg of powder
pH value:	12-13
Maximum particle size (mm):	0,7
Initial setting time:	30 min.
Permitted application temperature:	from +5 °C to +35 °C

FINAL PERFORMANCE

	Results	Test method
Heat resistance (°C):	700	-
Reaction to fire:	Class A1 (tabulated value)	EN 13501-1
Water absorption:	W 0	EN 1015-18
Thermal conductivity (W/(m·K)):	≥ 0,40	EN 1745
Adhesion to refractory bricks (N/mm²):	≥ 0,3	EN 1015-21
Compressive strength (N/mm²):	≥ 20	EN 1015-11

DATA MEASURED AT +23 °C - R.H. 50% AND NO VENTILATION

The information and recommendations given above are based on our best experience. However, we cannot accept any responsibility for improper use of the products. We therefore recommend that users assess whether the product is suitable for the intended use and in any case carry out preliminary tests. Always refer to the latest updated version of the technical data sheet, available at www.colmef.com.

FOR FURTHER INFORMATION OR SPECIAL APPLICATIONS, PLEASE CONTACT COLMEF TECHNICAL ASSISTANCE SERVICE.

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