



MUROMALT M10 MUROMALT M15

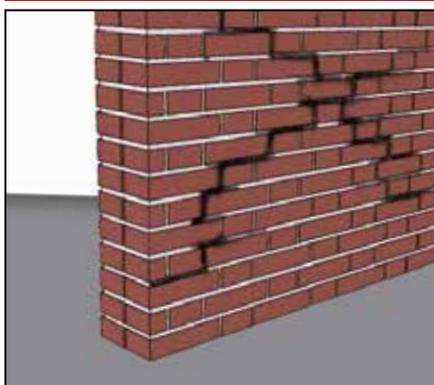
MORTAR FOR MASONRY AND REINFORCED PLASTER,
FOR INTERIOR AND EXTERIOR STRUCTURAL REINFORCEMENT
WITH REINFORCE NET ALKALI-RESISTANT (AR) FIBREGLASS NETTING

GRANTS *LEED* CREDITS

| CHARACTERISTICS | ENVIRONMENTAL | METHOD OF USE | | | PRECAUTIONS | |
|-----------------|---------------|---------------|------------------|-------------------|-----------------|-------------------------|
| DAMP-PROOFING | ECO GREEN | RECYCLABLE | MIX MECHANICALLY | SPRAY APPLICATION | APPLY BY TROWEL | STORAGE: IN A DRY PLACE |

PROBLEM

STRUCTURAL REINFORCEMENT OF MASONRY STRUCTURES



Walls subject to subsidence and cracking due to seismic events and poor shear strength need reinforcing to raise their safety to adequate levels and enhance their strength.

SOLUTION

MUROMALT M10 and MUROMALT M15 are pre-mixed mortars formulated with hydraulic lime and binders with low elastic modulus, supplemented with reinforcement fibres and special waterproofing agents, for treating masonry surfaces made of stone, brick and rock. Moreover, they can be used for raising exterior and interior walls according to the properties of their respective classes. The compressive strength classes, >10 MPa for MUROMALT M10 and >15 MPa for MUROMALT M15, allow for a broad application range in combination with fibre-reinforced polymer (FRP) REINFORCE NET reinforcements.



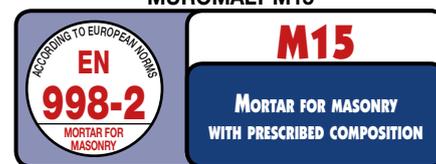
APPLICATION FIELDS

MUROMALT mortars are suitable for raising exterior and interior walls and for preparing plaster reinforced with AR fibreglass mesh for structural reinforcement of wall facings, vaults and various structures made of brick, stone, rock, mixed masonry or cavity walls. They are highly suitable for structural reinforcement in the event of stress caused by seismic events, thanks to their enhanced shear strength provided by the REINFORCE NET reinforcement.

ADVANTAGES

- Highly adaptable as a mortar for masonry and plastering works.
- Easy to apply manually or with a machine.
- Low elastic modulus for all restoration requirements.

MUROMALT M15



METHOD OF USE

• SURFACE PREPARATION

The masonry substrate must be free of crumbling parts, dust, saline efflorescence and old paint. Use a high-pressure water jet cleaner suitable for the type of masonry. Any cracks and cavities must be filled and repaired before application. Substrates with poor adhesion require an anchoring render coat through the addition of Collaseal latex to the MUROMALT mortar in the ratio of 1:1 with the mix water.

• PREPARING THE MIX

MUROMALT can be mixed in a cement mixer, with a drill or with a manual horizontal mixer, by adding clean water or through automatic dosing if plastering machines for pre-mixes are used (1). MUROMALT M15 has a high adhesion power; nonetheless all

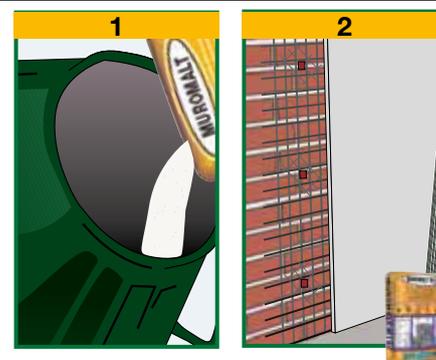
MUROMALT mortars can be additivated with COLLASEAL-type latexes in the ratio of 1:1 or 1:2 with the mix water for enhancing their adhesion to the various substrates.

• APPLICATION

MUROMALT mortars can be applied through mechanical projection and with a trowel, according to the normal rules and precautions required for masonry plasters and mortars. It is therefore advisable to wet the surface during the hot season and to protect the mortar against frost during the cooler months (2).

• FINISHES

After a natural drying period, MUROMALT mortars can receive all types of finishes, such as DECORFINE, SILICOLOR or similar.



• COVERAGE

14 kg/m² per cm of thickness.

(See following)

TECHNICAL CHARACTERISTICS

| | Standard | MUROMALT M10 | MUROMALT M15 |
|--|------------------------------------|--|--|
| Appearance | | Powder | Powder |
| Colour | | Grey | Grey |
| Particle size | | 0÷1.3 mm | 0÷1.3 mm |
| Apparent density | EN 1015-6 | 1.40 ± 0.10 kg/L | 1.40 ± 0.10 kg/L |
| Mixing water | | 17% ± 1% | 17% ± 1% |
| Storage in original packaging in a dry place | | 12 months | 12 months |
| Mix properties and workability | | | |
| Density of the mix | | 1.80 ± 0.10 kg/L | 1.80 ± 0.10 kg/L |
| Application temperature | | +5°C ÷ +35°C | +5°C ÷ +35°C |
| Minimum application thickness | | 8.0 mm | 8.0 mm |
| Maximum application thickness per layer | | 30.0 mm | 30.0 mm |
| Application | | Manual or mechanical | Manual or mechanical |
| Performance characteristics | | | |
| | Standard | Product performance | Product performance |
| Class and type | EN 998-1 | GP | GP |
| Class and type | EN 998-2 | M10 | M15 |
| Resistance to compression - after 28 days | EN 1015-11 | 10.0 N/mm ² - CS IV | 15.0 N/mm ² - CS IV |
| Resistance to bending - after 28 days | EN 1015-11 | 3.0 N/mm ² | 5.0 N/mm ² |
| Adhesion | EN 1015-12 | ≥0.5 N/mm ² - FP: A | ≥0.5 N/mm ² - FP: A |
| Water absorption through capillarity | EN 1015-18 | w ≤ 0.4 kg/m ² ·h ^{0.5} - W1 | w ≤ 0.4 kg/m ² ·h ^{0.5} - W1 |
| Water vapour permeability coefficient | EN 1015-19 | μ = 15÷20 | μ = 15÷20 |
| Thermal conductivity λ_{10,dry} | EN 1745 A.12 | 0.76 W/mK | 0.76 W/mK |
| Durability | EN 998-1 EN 998-2 | 5.2.3.2 compliant 5.4.7 compliant | 5.2.3.2 compliant 5.4.7 compliant |
| Chloride ion content | EN 1015-17 | Absent | Absent |
| Initial shear resistance | EN 998-2 App.C | ≥0.15 N/mm ² | ≥0.15 N/mm ² |
| Compressive elastic modulus | EN 13412 | 8 GPa | 10 GPa |
| Thermal resistance - Working temperature | | -30°C ÷ +90°C | -30°C ÷ +90°C |
| Reaction to fire | EN 13501-1 | A1 | A1 |
| Hazardous substances | EN 998-1 EN 998-2 | According note in ZA.1 | According note in ZA.1 |

Test conditions: temperature 23±2°C, R.H. 50±5% and air speed in the test area <0.2 m/s. These figures may vary depending on the specific conditions of the worksite: temperature, humidity, ventilation, absorbency of the base coat.

(*) The stated times may be longer or shorter as the temperature decreases or increases.

Compliant with the general principles defined in **EN 998-1** - Principles for evaluation of the use of products and systems.

(See previous)

• PRECAUTIONS

- Use cold water during summer and water at 20°C during winter.
- Application temperature: from +5°C to +35°C.
- Do not add other materials such as binders, aggregates or additives.
- During the hot season, keep the surface of the laid mortar damp so as to prevent the product from drying rapidly, for at least 8 hours.
- Wet the surfaces in case of high temperatures.
- Do not add water when the mix starts setting.
- Avoid sudden temperature changes while the plaster is setting.
- For application on smooth or poorly absorbent surfaces, always apply an anchoring render coat and check that it adheres properly.
- Store the product in its original closed packaging in a dry place. Protect against frost and high temperatures.

PACKAGING

25-kg Sack

• FOR ANY FURTHER INFORMATION OR ADVICE ON PARTICULAR APPLICATIONS, CONTACT OUR TECHNICAL OFFICE • IN ORDER TO CORRECTLY USE OUR PRODUCTS, REFER TO INDEX TECHNICAL SPECIFICATIONS •

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the numerous possible uses and the possible interference of conditions or elements beyond our control, we assume no responsibility regarding the results which are obtained. The purchasers, of their own accord and under their own responsibility, must establish the suitability of the product for the envisaged use.

The figures shown are average indicative figures relevant to current production and may be changed or updated by INDEX at any time without previous warning. The advice and technical information provided, is what results from our best knowledge regarding the properties and the use of the product. Considering