

MX-C 25 MASONRY

Inorganic matrix for FRCM strengthening of masonry structures

FIELDS OF APPLICATION

- Adapting and upgrading the static and anti-seismic behaviour of masonry buildings.
- Structural strengthening of loadbearing walls (piers) and perimeter strips (spandrels) of masonry buildings.
- Structural strengthening of masonry corners and horizontal bandaging at floor levels.
- Structural strengthening of eaves ring beams in masonry walls.
- Structural strengthening of masonry arches, vaults, and domes.
- Structural strengthening of masonry infrastructure.
- Anti-overturn protection for internal partitions.
- Anti-overturn protection for external infill walls.
- Connecting non-structural elements with the reinforced concrete structure of beams and columns.
- Non-structural works to public buildings.
- For protecting and securing r.c. + hollow clay composite slabs and arched or vaulted slabs.

ADVANTAGES AND PROPERTIES OF THE SYSTEM

- The inorganic matrix has very good ability to adhere to the support and very good chemical and physical compatibility with masonry.
- The inorganic matrix is easy and reliable to apply, in the same way as a traditional bagged premixed cementitious mortar.
- The system can also be applied to damp supports without any need for special protection.

METHOD OF USE

PREPARATION OF THE MX-C 25 MASONRY MATRIX

- A planetary mixer can be used but should not be loaded to more than 60% of its nominal capacity for the indicated mixing times.
 - A rotary mixer can be used but should not be loaded to more than 60% of its nominal capacity for the indicated mixing times.
 - If mixing manually, pour part of the bag contents into a bucket and use a drill fitted with a paddle mixer, adding water as required.
 - Once a bag of pre-mixed **MX-C25 Masonry** has been opened, all of its contents must be used.
- Preparation using a **planetary mixer (or a rotary mixer, or a drill fitted with a mixer)**:
1. Open the 25 kg bag of mortar.
 2. Pour the premixed **MX-C 25 Masonry** into the mixer and add about 90% of the prescribed amount (6.0-6.5 litres) of clean water.
 3. Mix continuously (without stopping, to prevent clumping) for 2-3 minutes (3-4 minutes if using a rotary mixer). Then add the remaining 10% of clean water and finish by mixing continuously for about one more minute.
 4. Leave the mix to stand for about 1-2 minutes before use.
 5. Before applying the material give it a final mix if necessary.

TECHNICAL CHARACTERISTICS

| PROPERTIES OF MX-C 25 MASONRY INORGANIC MATRIX | |
|--|--|
| Density | approx. 1500 kg/m ³ |
| Application time | After 10-15 minutes densification begins. Mix again and use within a maximum of approx. 45 minutes |
| Application temperature | from +5°C to +35°C |
| Compressive strength at 28 days | ≥ 20 MPa |
| Flexural strength at 28 days | ≥ 3.5 MPa |
| Young's modulus of elasticity at 28 days | ≥ 7000 MPa |
| Consumption | 1.2 kg/m ² per mm of application thickness 4.8 kg/m ² per 4 mm of application thickness |
| Reaction to fire (EN 13501-1) | Euroclass A2 |
| Packaging | Disposable wooden pallets each with 40 no. 25 Kg bags, equivalent to 1000 kg of the loose product |
| Storage conditions | In original packaging, under cover, in a cool, dry, unventilated place |
| Shelf life (European Directive 2003/53/EC) | Not more than twenty-four (24) months from packing date |
| Safety data sheet | Available from www.ruregold.com |
| CE marking | EN 998 – 2 |

GENERAL NOTES/GUIDANCE

Apply the **MX-C25 Masonry** inorganic matrix following the methods indicated by the Designer. Any support preparation work, if required, should be carried out with particular care.

Store the material under cover in a dry place well away from substances that could compromise the integrity and adhesion of the matrix. Appropriate site PPE must be worn during installation.

For further technical information contact Ruregold Technical Support on +39 02.48011962 – info@ruregold.it.

SPECIFICATION ITEM

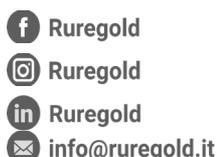
Supply and apply Ruregold **MX-C25 Masonry** inorganic matrix specific for use on masonry supports, of compressive strength ≥ 20 MPa, bending strength ≥ 3.5 MPa and Young's modulus of elasticity ≥ 7.0 GPa. The FRM uses this matrix in combination with carbon meshes to increase the

resistance to pressure bending and shear in load-bearing walls (piers) and perimeter strips (span-drels) for in-plane and out-of-plane actions. It can also be used to strengthen masonry corners and ring beams at intermediate floors and eaves; to strengthen the extrados and intrados of arched and vaulted structures; to confine masonry columns; and increase ductility. The FRM system is suitable for load conditions caused by seismic action. The system meets the requirements of CNR-DT 215/2018 (Guide for the Design and Construction of Externally Bonded Fibre Reinforced Inorganic Matrix Systems for Strengthening Existing Structures, issued by Italian national research council CNR - Advisory committee on technical recommendations for construction). The reaction to fire classification of the system meets the requirements of EN 13501-1: A2-s1, d0. Preparation of the surfaces and installation of the system must follow the manufacturer's instructions.

Edition 6/2021

This technical data sheet is not a specification.

Although the information provided is the outcome of our best experience and knowledge, it is indicative only. The user is responsible for determining whether the product is suitable or unsuitable for the intended use, and accepts all liability arising from the use of that product. Ruregold reserves the right to change the packaging and the quantity it contains, without notice. Verify that the revision of the data sheet is current. Ruregold products are intended for professional use only.



Ruregold s.r.l.
Via Achille Grandi, 5
20056 • Trezzo sull'Adda (MI) • Italy
Ruregold.com • +39 02.48011962