

MX-JOINT

Inorganic matrix for fibre connectors of FRCM systems

FIELDS OF APPLICATION

- Adaptation and upgrading of the static and anti-seismic behaviour of masonry and reinforced concrete buildings.
- Structural strengthening to loadbearing walls (piers) and spandrels of masonry buildings.
- Structural strengthening to masonry corners and horizontal bandaging at floor levels.
- Structural strengthening to eaves ring beams in masonry walls.
- Structural strengthening to masonry arches, vaults, and domes.
- Structural strengthening to infrastructure works built from masonry.
- Anti-shear strengthening to reinforced concrete beams.
- Strengthening to resist combined axial and flexural forces in reinforced concrete columns.
- Structural strengthening to infrastructure works in reinforced concrete.
- Anti-overturn protection for internal partitions.
- Anti-overturn protection for external walls.
- Connecting the reinforced concrete supporting structure of beams and columns with non-structural elements.
- Protecting and securing composite concrete/clay slabs and arch-vaulted slabs.
- Non-structural works to public buildings.

ADVANTAGES AND PROPERTIES OF THE SYSTEM

- Inorganic matrix with very good ability to adhere to the support and very good chemical-physical compatibility with masonry.

- The inorganic matrix is easy and reliable to place, being laid in the same way as a traditional mortar.
- The system can also be applied to damp supports without the need to use special protections.

METHOD OF USE

PREPARATION OF MX-JOINT INORGANIC MATRIX

- Open the 5 kg bucket of **MX-JOINT** inorganic matrix.
- Pour in 90% of the required total water content (0.95 litres of clean water) and mix for about three minutes.
- Using a paddle mixer drill at low speed, continue mixing without stopping until a homogeneous lump-free mixture is obtained.

GROUTING INTO THE HOLE

- Add the remaining quantity of water (0.10 litres of clean water) and continue until the mixture is homogeneous, free of lumps, and has a "pasty/creamy" consistency.
- Pour the contents into the Ruregold **GUN**.
- Using the Ruregold **GUN**, inject the **MX-JOINT** inorganic matrix into the hole.

FOR IMPREGNATING THE FIBRE CONNECTOR

- Add the remaining quantity of water (0.35 litres of clean water) and continue mixing until a homogeneous and lump-free mixture of "fluid" consistency is obtained.
- Impregnate the part of the connector that was prepared earlier.

TECHNICAL CHARACTERISTICS

PROPERTIES OF MX-JOINT INORGANIC MATRIX	
Density	approx. 1800 kg/m ³
Application temperature	from +5°C to +35°C
Compressive strength at 28 days	≥ 40 MPa
Flexural strength at 28 days	≥ 3 MPa
Young's modulus of elasticity at 28 days	≥ 18.50 GPa
Consumption	approx. 0.8 - 1.0 kg/m
Reaction to fire (EN 13501-1)	Euroclass A2
Packaging	Disposable wooden pallets with 72 buckets of 5 kg equating to 360 kg of bulk 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-JOINT** inorganic matrix as instructed by the Designer. Any support preparation work, if required, should be carried out with particular care.

Store the selected matrix under cover in a dry place well away from substances that could compromise its integrity and adhesion. 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 application of Ruregold **MX-JOINT** inorganic matrix specific for connections, compressive strength ≥ 40 MPa and flexural strength ≥ 3 MPa. The unidirectional PBO and carbon fibre connection

system enables connections to be made between existing structures and the structural strengthening and to obtain, where required, the necessary continuity of the strengthening. Also for making connections for anti-overturn protection works. Face-to-face connections at corners and separated intersecting walls. 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). Fire reaction 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.

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This technical data sheet is not a specification.

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