

MasterRoc TIX 710

Special fine grain, single-component cement mortar, with plastic/thixotropic consistency, expansive, suitable for anchoring/bolts, joints and rigid filling/seals in general, and also overhead

DEFINITION OF THE MATERIAL

MasterRoc TIX 710 is a single-component cement mortar, with maximum 0.5 mm grain, with plastic/thixotropic consistency that, when mixed with water, gives a mixture of excellent workability with plastic/thixotropic consistency; it can be applied for anchoring bolts, rigid filling such as interspaces between tunnel segments and/or prefabricated elements.

MAIN FIELDS OF APPLICATION

MasterRoc TIX 710 is an anchoring mortar with a plastic consistency, for applications such as:


- anchoring steel or FRP bars and/or bolts inside holes also overhead;
- rigid sealing of joints between prefabricated elements such as tunnel segments.
- filling in general, such as those between the tunnel segments and rock.



MasterRoc TIX 710 can also be used with wet substrates.

CHARACTERISTICS

- Thanks to the special workability, it can also be applied to overhead anchorings/bolts without any subsidence or waste
- It can be pumped to fill the holes, even deep holes, thus ensuring simple filling and maintaining workability for about 90 minutes
- MasterRoc TIX 710 meets the acceptance limits indicated in UNI EN 1504 part 6 (Anchoring of reinforcing steel bar),
- Longer durability, greater adhesion and high mechanical performances in general;
- It can also be applied on damp substrates,
- High resistance to high temperatures (e.g. in case of impact and fire) due to the cement nature of the material.

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BASF Construction Chemicals Italia spa Via Vicinale delle Corti, 21 Treviso 16 IT0096/01	
EN 1504-3 Cement based mortar for structural repair of concrete structures. EN 1504-3 methods 3.1/3.2/3.3/4.4/7.1/7.2	
Compressive strength:	Class R4
Chloride content:	≤ 0,05%
Adhesive bond:	≥ 2,0 MPa
Carbonation resistance:	pass
Elastic modulus:	≥ 20 GPa
Thermal compatibility: freeze thaw, thunder shower, dry cycling	≥ 2,0 MPa
Capillary absorption:	≤ 0,5 Kg/m ² ·h ^{0,5}
Reaction to fire:	Class A1
Dangerous substances:	See SDS

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PERFORMANCE

(This refers to a consistency UNI EN 13395/1 equal to 190-200 mm without bleeding; T = 20°C, Ur > 90%)

Test method	Performance
Adhesion to concrete, UNI EN 1542	> 2.0 MPa
Adhesion to concrete for shearing, UNI EN 12615	> 6.0 MPa
Expansion in plastic phase in 24 hours according to UNI 8996	> 0.4%
Workability time of the mixture	> 90 minutes at 20°C
Impermeability to water - under pressure, UNI EN 12390/8 - capillary absorption, UNI EN 13057	average penetration depth < 20 mm < 0.5 kg·m ⁻² ·h ^{-0.5}
Resistance to freezing-thawing cycles with deicing salts measured as adhesion UNI EN 1542 after cycles UNI EN 13687/1 on MC 0.40 substrate	≥ 2 MPa after 50 cycles
Elastic modulus, UNI EN 13412	22,000 (± 2,000) MPa
Compression strength, UNI EN 12390/3 (at 20°C)	1 d > 18 MPa 7 d > 40 MPa 28 d > 50 MPa

PACKAGE

Available in 25 kg bags

Consumption 1.73 kg/l of mixture

APPLICATION SHEET

STORAGE

Keep in a cool and dry place between +5°C and +30°C.

TEMPERATURE

MasterRoc TIX 710 can be used when the ambient temperature is between +5°C and +30°C.

MIXING

Using a low speed power drill and/or suitable mixer, mix the entire content of the bags with the minimum amount of water provided (equal to 20%) for 3-4 minutes, until a smooth mixture free of lumps is obtained. Depending on the consistency required, add more water if needed (without exceeding the maximum amount specified of 22%).

APPLICATION

FOR ANCHORING

First position of the bolt, then fill the hole by pumping the mixed product using the necessary pressure based on the depth and size of the hole.

FOR RIGID SEALS

Fill the joint by pumping the mixed product using the necessary pressure based on the depth and size of the joint to be filled.

Since 16/12/1992, BASF Construction Chemicals Italia Spa has been operating under a Certified Quality System in compliance with UNI EN ISO 9001. Furthermore, the Environmental Management System is certified according to UNI EN ISO 14001 and the Safety Management System is certified according to OHSAS 18001. Environmental sustainability: Green Building Council Partner since 2009.

BASF Construction Chemicals Italia Spa

Via Vicinale delle Corti, 21 – 31100 Treviso – Italy

T +39 0422 429200 F +39 0422 421802

<http://www.master-builders-solutions.basf.it> e-mail: infomac@basf.com

For more information contact the BASF Construction Chemicals Italia Spa Technician in your area.

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This edition supersedes all previous ones.

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