

MasterEmaco[®] S 110 TIX

(PC Mix Tixo)

Fine-grained shrinkage-compensated fast-hardening thixotropic mortar intended for concrete structure repair and recovery. Application thickness in one layer is 20 to 40 mm.

DESCRIPTION

MasterEmaco S 110 TIX is a ready-to-use fine-grained dry mortar. When mixed with water, it forms a thixotropic non-delaminating grout with the adhesion > 1 MPa. MasterEmaco S 110 TIX is applied by hand either by a trowel, or by a machine, using a plastering station. Material application thickness varies from 20 to 40 mm. If greater thicknesses of the material are required, it should be placed in several layers.

RECOMMENDED USE

- Repair and recovery of reinforced concrete structures
- Local repair of damaged or destroyed elements of concrete and reinforced concrete structures
- MasterEmaco S 110 TIX may be used for indoor and outdoor operations, for vertical, horizontal and ceiling surfaces.

PACKAGING

MasterEmaco S 110 TIX is packed in 30kg water resistant multi-layer sacks.

COVERAGE

2100 kg of MasterEmaco S 110 TIX are required to produce 1 m³ of mortar.

SHELF LIFE AND STORAGE CONDITIONS

Guaranteed shelf life of MasterEmaco S 110 TIX, stored in a closed undamaged packaging, is 12 months. Store the material in the manufacturer's package in enclosed dry rooms at the humidity not exceeding 70%, at the conditions, which ensure package safety and moisture protection.

SPECIFICATIONS

(Table 1)

Indicator	Control method	Rated value
Dry mortar moisture, %	GOST 8735	max 0.1
Maximum aggregate size, mm	GOST 8735	3.0
Breaking cone fluidity, mm	GOST 310.4-81	min 160
Working time, min	STO 70386662-010-2014	min 30
Compressive strength <ul style="list-style-type: none"> • 24 hrs • 28 days 	GOST 310.4-81	min 10.0 min 40.0
Flexural strength: <ul style="list-style-type: none"> • 24 hrs • 28 days 	GOST 310.4-81	min 3.0 min 5.0
Frost resistance grade (in salts)	GOST 10060-2012	F ₂ 200
Water proofing grade, not lower	GOST 12730.5	W8
Air entrainment	GOST 10181	max 6%
Adhesion to concrete in 28 days, MPa	STO 70386662-010-2014	min 1.5
Specific effective activity of natural radionuclides, Bq/kg	GOST 30108	max 370

CONCRETING NOTES

MasterEmaco S 110 TIX may be used at the ambient temperatures of +5°C to +35°C. (At the ambient temperatures below +5°C, heating loops or heat tracing are required).

MasterEmaco[®] S 110 TIX

(PC Mix Tixo)

PREPARATORY ACTIVITIES

1. SURFACE PREPARATION

The substructure must be sound, clean and capable of bearing the load. Very dense and smooth substrates and layers, incapable of carrying the load (e.g., dirt, old coatings, film-forming compositions, water-repellent materials or laitance), as well as damaged concrete surfaces must be pre-treated by suitable methods, e.g., using sand or water blasting machines. The substructure must be rough. Working areas shall be delineated by cutting with a diamond disk to a minimum depth of 20 mm. Use a perforator or a low-impact energy hammer to remove concrete from the working area. To provide good adhesion of the repair mortar to the substructure, the surface should be rough and have furrows with a height of at least 5 mm. The pretreated substructure should be moistened for 24 hours. If the above mentioned may not be implemented for any reason, then the substructure shall be sufficiently saturated for at least 2 hours before applying MasterEmaco S 110 TIX. The surface should be wet, but avoid puddles.

2. MIXING

Before mixing MasterEmaco S 110 TIX with water, make sure that all the necessary tools (mixers, trucks, buckets, trowels, etc.) are close at hand; check whether the available amount of the material is sufficient enough for work completion; verify the performance of the preliminary activities specified in Item 1 of the Surface Preparation section. Mix only that amount of the mortar which can be used within 30 minutes (at the ambient temperature of +20°C, the pot life of the mix in the bucket is 30 minutes). For correct mixing, follow the instructions below:

- Open the sacks with the MasterEmaco S 110 TIX dry mortar, required for work performance, shortly before mixing;
- Pour the required amount of water indicated in Table 2 in a mixing vessel. The water flow may vary slightly dependent on the temperature and humidity of the environment. At the ambient temperature above +30°C, use cold water for concrete mixing. This will extend the working time of the concrete

mix. At the ambient temperature below +10°C, use warm water for concrete mixing.

- Turn the mixer on, and quickly and continuously add the material. Once all required amount of the dry mortar is added, continue mixing for at least 4 minutes. The ready-to-use mix shall be homogenous and lump-free.

For mixing small amounts of MasterEmaco S 110 TIX, a slow-speed drill with a spiral nozzle may be used (max 300-400 rpm). Mixing by hand and gravity type mixers is not allowed. In case of special requirements, please contact BASF Construction Chemicals.

WATER CONSUMPTION for mixing MasterEmaco S 110 TIX (Table 2)

Water amount, liters per 30kg sack	
Minimum	Maximum
3.9	4.2

3. APPLICATION

The ready-to-use compound may be applied using plastering trowel stations or trowels. While applying the material by hand, it is recommended to prepare a primer layer of MasterEmaco S 110 TIX with a more liquid consistency, and apply it onto the surface by rubbing the mortar into the substructure with a brush with stiff bristles. Then, apply a base layer, using the "wet-on-wet" method. Optionally, use a wooden, plastic or synthetic sponge trowel to smoothen the surface. The post-application treatment with a trowel may be started only when the repair compound has set, i.e. when fingers, pressing the repair compound, do not draw into it, but leave only a light footprint.

4. TREATMENT

Following the application, a proper water treatment regime should be provided for the poured concrete for at least 24 hours, to be extended up to 2 days in case of hot, dry, windy weather. For this purpose, use standard cement-bearing material treatment procedures (cover the surface with a film or wet burlap; spray water), or



We create chemistry

MasterEmaco[®] S 110 TIX

(PC Mix Tixo)

apply special film-forming compositions
(MasterKure 216, MasterKure 220).

case of irritation, thoroughly wash the affected
area with water and consult a doctor, providing
the information about the product.

PRECAUTIONS

This product contains cement, irritating the skin
and mucous membranes. Avoid eye and skin
contact. Use personnel protective equipment. In

Represented information is based on our current experience. In case of various factors affecting the result, information does not mean legal responsibility. For additional information, please contact your local advisor.

As far as new materials production is periodically renewed, company has the right to change description of material without informing clients. When a new description is launched, an old one is to expire. Before the usage of a material, make sure that you have an appropriate description at the moment.

Limited company "BASF Stroitelnye Sistemy"

Office in Moscow: +7 495 225 6436

Office in St. Petersburg: +7 812 332 0412

Office in Kazan: +7 843 212 5506

Office in Krasnodar: +7 861 202 22 99

Office in Minsk: +375 17 202 2471

Office in Kiev BASF T.O.V.: +380 44 5915595

E-mail: stroysist@basf.com www.master-builders-solutions.basf.ru

July 2015

SM

© = Certified trademark BASF-Group in many countries.