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MasterEmaco® N 900 (Formerly known as Emaco® 90)

Refilling Mortar for Concrete Structures

Description of Product

MasterEmaco® N 900, is cement based one part, polymer and fibre modified repair mortar for finishing the concrete surfaces.

Complies with EN 1504-3/R2

Fields of Application

- Repair and finishing the concrete surfaces,
- Providing sound and waterproof layer on concrete surfaces under epoxy and PU coatings in industrial plants.
- Providing sound layer on concrete surfaces under waterproofing systems.
- Repair of the defects on the concrete surfaces before coating (tile etc.) applications,
- Providing smooth and waterproof layer under paintings,
- Providing smooth layers over structural repair mortars.

Features and Benefits


- Mixed with only water and can be applied easily
- Perfect bonding to the concrete substrates
- Can be applied in wide areas without cracking
- Thixotropic and can be used in over-head applications
- Waterproof
- Resistant to freeze-thaw cycle
- Shrinkage compensated

Application Procedure

Preparation of Substrate

The concrete surfaces must be sound, clean and dry. It shouldn't be weakened by over-troweling and lack of curing. The concrete should be free of frost, curing membranes, waterproofing treatments, oil stains, laitance, friable material and dust. If there is a water leakage it must be drained or properly plugged. Defects up to 4 cm

Technical Data

Product Chemistry	Mineral Fillers and Polymer Modified Cement	
Color	Grey	MK
Compressive Strength TS EN 196 (1 day) (7 days) (28 days)	> 20 N/mm ² > 35 N/mm ² > 40 N/mm ²	
Flexural Strength TS EN 196 (28 days)	> 7 N/mm ²	
Bonding Strength to concrete (28 days)	> 1.0 N/mm ²	
Application Thickness	Min. 1 mm Max. 5 mm	
Application Temperature	+5°C - +30°C	
Pot Life	45 minutes	
Fully Cured at 20°C	28 days	

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations





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depth should be repaired with **MasterEmaco® S 488** before starting to **MasterEmaco® N 900**, applications. Concrete surfaces must be saturated with water before application.

Mixing

Add enough water into a clean mixing bucket by using a proper water gauge. Add the powder into the bucket slowly and continuously. Mix the fresh mortar with a proper electrical mixer (300-600 rpm) for 4 minutes until having a homogenous consistency. Let the mortar have rest for 4 minutes and re-mix for 30 seconds.

Mixing Ratio

MasterEmaco® N 900	1 kg powder	20 kg bag
Quantity	0,19 liter	4,75 liter
Mixed Density	~2,05 kg/liter	

Application Method

MasterEmaco® N 900 should be applied to the prepared surface by using a steel trowel. Application thickness should be between 1-5 mm. After the mortar finishes its first setting, some water should be sprayed onto the mortar and the surface should be finished with using steel or wooden trowel.

Open areas should be protected from the rain, wind, etc. aggressive whether conditions during the first 24-48 hours after finishing repair by using wet clothes, curing membranes etc.

Coverage

1.72 kg/m² for obtaining 1 mm thick layer.

Watch Points

- Mixed mortar must be used in 45 minutes in 20°C. Working time will be 20-25 minutes in 30°C.
- Open areas should be protected from the rain, wind, etc. aggressive whether conditions during the first 24 hours after finishing repair.
- Cement based materials' pot life and curing times vary depending on the relative humidity, substrate and ambient temperature. Reaction gets slow in low temperatures and it causes to extension on pot life and working time. On the other hand high temperatures speed up the reaction, which results to short pot life and working time. For full curing of material, both the substrate and ambient temperature shouldn't be under allowed application temperature.

Cleaning of Tools

After the application all tools should be cleaned with water. **MasterEmaco® N 900** can be cleaned with only mechanical abrasion after hardening.

Packaging

25 kg bag

Storage

Store in original container in cool (+5°C - +25°C) and dry indoor conditions.

Shelf Life

12 months under proper storage conditions after production date.



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Health and Safety Precautions


It is dangerous to get close to the store areas with fire. The store must be well ventilated.

Work clothes, protective gloves, glasses and mask defined in Labour Laws must be used during the application. Avoid from material to contact with skin and eyes. In case of contacting wash your skin with water and go to doctor immediately.

Don't bring any food and drink to the application area. Store the material away from the children. For further information Material Safety Data Sheets should be read.

Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **BASF Türk Kimya Sanayi ve Tic. Ltd. Şti.** is only responsible for the quality of the product. **BASF Türk Kimya Sanayi ve Tic. Ltd. Şti.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones (01/2015).

	
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11 1020 - CPD - 040 039921	
EN 1504-3 Structural and non-structural repair Class R2	
Principle 3: Concrete Restoration	3.1 Applying mortar by hand
Compressive Strength	≥ 15 N/mm ²
Chloride Ion Content	≤ 0,05 %
Adhesive Bond	≥ 0,8 N/mm ²
Restrained Shrinkage/Expansion	≥ 0,8 N/mm ²
Reaction To Fire	A1
Dangerous Substances	Complies with 5.4