

MONNELI EPOMORT HS

High Performance Epoxy Mortar

Product Description

A three components solvent free epoxy based resin with a modified hardener and carefully selected and graded crush resistant aggregates to produce very strong, high quality non-shrink mortar. EPOMORT HS is especially suitable as a repairing mortar, for floor tapping when higher resistance to chemical attack is required.

Uses

EPOMORT HS is designed to provide repairs in horizontal locations up to 50 mm thickness and in vertical locations up to 15 mm in single applications.

EPOMORT HS can be used for the following:

- Repair of surfaces subjected to mechanical & chemical attacks
- Repair damaged floors in very tough and harsh environments as for industrial and heavy traffic floors
- Profiling the head of pile caps
- Waterproof sealing and joint edges repairs
- Manhole linings
- Sewerage works
- Repairing concrete in load bearing structures, bridges, channels, dams and tunnels

Advantages

- High mechanical strength
- High impact and erosion resistance
- Due to specially blended hard mineral aggregates, it gives extreme wear resistance
- Excellent chemical resistance against wide range of acids, alkalis and industrial chemicals
- Non slip and easy cleaning properties

- 4 to 5 times stronger than typical concrete with excellent abrasion and impact resistance
- Waterproof once cured

Instructions for Use

Surface Preparation

Concrete Preparation

Surface must be clean and sound. Remove all dirt, laitance, grease, curing compounds or any other foreign matter. Sandblasting or mechanical abrasion should be used to remove harsh corrosion or extreme contamination.

The decayed or damaged area to be repaired should be marked with a marker. Cut the marked area to a depth of at least 5mm using a hand held concrete saw or disc grinder to avoid feather edging and to provide a square edge. Break out or chip the complete repair area down to sound base using sharp tools or chipping hammer.

Steel Preparation

All corroded steel should be completely cleaned. It is recommended that grit blasting be used to clean the reinforcing steel. Particular attention should be paid to the rear side of the bar to ensure all corrosion products have been removed.

Priming

Concrete Priming

The product is self-priming; however, if the substrate is highly porous, PRIMER POXY FF a solvent free high performance epoxy primer shall be used.

Steel Priming

The cleaned steel should be coated within 3 hours. Apply one coat of BETOFER, a corrosion proof cementitious based primer or EPOZINC, a two component Zinc rich EPOXY PRIMER, continuously with brush onto the cleaned bar reinforcement ensuring that the whole steel surface area is completely covered. Allow to dry before proceeding with the repair.

Mixing

EPOMORT HS is supplied as a three component kit consisting of base component, curing agent and a bag of selected, graded aggregate. The resin and hardener components should be stirred separately for three minutes or until thoroughly blended. The contents of the hardener should be added to the resin component and stirred with a force action mixer or a heavy duty, slow speed drill fitted with a mixing paddle until all the components are thoroughly blended. Then slowly add the entire amount of aggregates to the resin while the mixer is still running. Partial mixing of the three components should not be applied under any circumstances.

Application

It is recommended to apply EPOMORT HS horizontally in layers of 50 mm maximum and 5 mm minimum. In vertical applications, EPOMORT HS can be applied up to 12 mm thick in single layer without the use of formwork. For large thicknesses, apply EPOMORT HS in subsequent layers within 8 to 12 hours. If this time is exceeded, the surface should be re-primed prior to proceeding with the successor layer.

Apply the mixed product firmly onto the tacky primer using a trowel. Apply the product in layers to build up the required thickness. Use a wooden float to compact the applied layer to ensure a complete secured bonding of the applied product to the surface. Before setting, use a steel trowel to smoothly finish the mortar surface.

Cleaning

Tools and equipment should be cleaned with SOLVENTE 10 from Colmef immediately after use.

Hardened material should be removed mechanically. Spillages should be absorbed with sand or sawdust and disposed of in accordance with local regulations.

Recommendations

- Do not use during rainy days or if temperature is less than +5°C.
- Application should not be carried out when atmosphere humidity exceeds 90%, or when the surface to be coated is less than +3°C above the dew point.
- Do not expose packing to the direct sunrays.

Technical Data

Properties	Results
Appearance	Thick mortar
Color	Grey
Mix density at 25°C	2.1 kg/L
Pot life at 25°C	60 minutes
VOC	3.0 g/L
Tensile strength (BS 6319-7)	12 N / mm ²
Compressive strength (ASTM C579)	80 N / mm ²
Flexural strength (ASTM C580)	24 N / mm ²
Water absorption	<0.2%
Drying time	Surface dry in 24 hours. Re-coatable after 16 hours in normal drying conditions.
Chemical resistance at 25°C Substrates treated with EPOMORT HS sustains excellent chemical resistance to the following solutions:	
Citric acid	10%
Phosphoric acid	10%
Tartaric acid	10%
Sulphuric acid	10%
Hydrochloric acid	25%
Sodium hydroxide	50%
Petrol / Diesel	100%
Hydrocarbons	100%

All values are subject to 5-10 % tolerance

Consumption

One kit of EPOMORT HS will cover 1 m² at 4 mm thickness, depending on surface condition.

Packaging

EPOMORT HS is supplied in three components kit. It is available in 8kg and 16kg packaging.

Storage

Store in dry and covered place out of direct sunlight and protect from high temperature (higher than 30 °C). If stored as recommended its shelf life would be 12 months from the manufacturing date.

Health & Safety

During application, wear appropriate protective clothing, goggles, gloves and respiratory equipment if necessary.

In case of contact with skin, rinse with water and again wash thoroughly with soap and water. In case of contact with eyes, rinse with plenty of water and seek medical advice accordingly.

If ingested, obtain medical attention immediately. Do not induce vomiting.

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DUBAI
ABU DHABI
KSA
ITALY

P.O. Box 123808 Dubai UAE
P.O. Box 127326 Abu Dhabi, UAE
P.O. Box 335896 Code: 11383 - Riyadh KSA
Z.I. Ponte d'Assi 06024 Gubbio (PG)

T. +971 4 8803488 F. +971 4 8803450
T. +971 2 5511949 F. +971 2 5511749
T. +966 1 2654277 F. +966 1 2654335
T. +39 75 9221297 F. +39 75 9221174

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colmef@colmef.ae

www.colmef-me.com