

Cicomortar®HBM

Chemical Resistant, Solvent Free, Epoxy Mortar

DESCRIPTION

Cicomortar®HBM is a three component, solvent free, non-toxic, epoxy resin based mortar. It is designed to be highly resistant to the most known industrial chemicals. It has high abrasion resistance, as well as waterproofing action for concrete and metals. Cicomortar®HBM is ideal to be used for lining water reservoirs, tanks, and pipes and is non-toxic for potable water tank repair works. Cicomortar®HBM is available in two grades, thin grade up to 10 mm thickness layer, and thick grade up to 30 mm thickness layer to suit the different repair and lining applications.

USES

- Lining and repair of manholes, potable water, chemicals storage tanks of petroleum and chemical industries, and food process structures, like storage areas & piping.
- Emergency repairs to concrete columns, roofs, and beams up to 30mm thickness application in layers.

ADVANTAGES

- Solvent-free.
- Non-shrink.
- High compressive strength.
- Abrasion and chemical resistance.
- Available in two grades.
- Long pot life.
- Hygienic & Non-toxic.
- Prevents steel corrosion.

PACKAGING

18.5 kg set

SHELF LIFE & STORAGE

12 months storage life if stored in its original unopened containers under a dry and shaded place in a temperature from 5°C to 40°C.

TECHNICAL PROPERTIES

Grade	Thin	Thick
Form	Gray & Sandy mortar	
Density @ 25°C	1.96±0.02 kg/l	2.06±0.02 kg/l
Solid content	100%	100%
Pot Life @ 25°C	90±5 min.	90±5 min.
Touch dry @ 25°C	8 hrs.±15 min.	10 hrs.±15 min.
Coverage	1.96 Kg/m ² @ 1 mm DFT	2.06 Kg/m ² @ 1 mm DFT

MECHANICAL CHARACTERISTICS

Grade	Thin	Thick
Compressive Strength [ASTM C579] @ 14 days	82±2 N/mm ²	40±2 N/mm ²
Flexural Strength [ASTM C580] @ 14 days	28±0.50 N/mm ²	15±0.50 N/mm ²
Tensile Strength [ASTM C307] @ 14 days	14±0.50 N/mm ²	7.5±0.50 N/mm ²

CHEMICAL RESISTANCE

The fully cured Cicomortar®HBM is resistant to the following chemicals:

- Saltwater
- Benzene
- Kerosene
- Acetic acid 20%
- Ammonia 10%
- Chlorine
- Citric acid 20%
- Hydrochloric acid (HCl) 10%
- Nitric acid (HNO₃) 20%
- Lactic acid 20%

- Soda solution (saturated) [Na_2CO_3]
- Sulphuric acid [H_2SO_4] 10%
- Sodium hydroxide 40g/L
- Phosphoric acid [H_3PO_4] 20%
- Formic acid 10%
- Alum at 60°C
- Chlorine

APPLICATION INSTRUCTIONS

Surface Preparation

All surfaces to be treated must be clean, dry, and free from dust, rust, and laitance. Dense concrete should be abraded followed by surface cleaning using a suitable brush. Laitance, oil, and grease could be removed by either using Cicosurface®Degreaser, sandblasting, or steam cleaning. All steel substrates should be free from dirt, oil, and grease and blast cleaned to Sa 2½ according to EN ISO 12944, part 4.

Priming

Apply one coat of Cicoprime®10 on the surface prior to using Cicomortar®HBM which should be laid while the primer is still tacky. The mixed resin (A+B) of the product can be used also as a primer.

Mixing

Stir the contents of component A separately first, then add component B to component A in its tin and mix them well using a mid speed drill for one minute. After having the resin mixed, pour it into a larger container (more than 16 ltr volume) and add component C slowly while mixing with a powerful slow speed shear mixer until a uniform consistency is achieved.

Application

Apply the mixed Cicomortar®HBM to the substrate using a gloved hand or a trowel. Layers of up to 10mm thickness may be built for the thin grade and 30mm for the thick grade in one go. Compact Cicomortar®HBM tightly to ensure maximum substrate adhesion and density. Where a thicker layer is required the surface of the intermediate layers should be scratched and keyed and then primed with Cicoprime®10 prior to the application of the following layer.

CLEANING

Tools contaminated with Cicomortar®HBM can be cleaned using Cicosolvent®. Hardened material can be removed by mechanical means.

PRECAUTIONS

Health And Safety

Cicomortar®HBM should not be swallowed or allowed to come into contact with skin or eyes. Suitable protective goggles and gloves should be worn. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. When contact with the skin is made, wash off immediately with soap and water. If swallowed, seek medical attention immediately, do not induce vomiting.

TECHNICAL SUPPORT

CIC provides on-site assistance, as well as consulting services on projects when requested. Technical data sheets on other CIC products and guidance on their use are available on request.



Warranty

CIC products are guaranteed against defective materials and manufacture and sold subject to CIC's standard terms and conditions of sale. Whilst CIC endeavors to ensure that any advice, information or recommendation given is correct, the company cannot accept any liability either directly or indirectly arising from the use of its products. User of the product must test the product's suitability for the intended application and purpose, since the company has no control over the application of its products. Information contained in this document is given on the best current knowledge. Our Products are in continuous development and CIC reserves the right to change the product without prior notice.