

# HIND CEMPOX (M)

THREE COMPONENT EPOXY & CEMENT BASED MORTAR  
FOR SEALING OF CONCRETE MORTAR & STONE SURFACES



## DESCRIPTION

**Hind Cempox (M)** is a three-component epoxy modified cementitious, thixotropic type, fine textured micro mortar for leveling and finishing of concrete, stone or mortar surfaces.

## USES

**Hind Cempox (M)** has wide range of uses:

- Can be applied to new work or damaged concrete in aggressive chemical environments.
- Used as a pore sealer to rebuild the profile, smoothness and leveling of concrete surfaces.
- Used to control moisture, suitable for restoration work physical resistance, preserving/restoring passivity and for increasing resistivity. (According to various principle & methods of EN-1504-9)
- Can be applied over substrates containing high moisture and over green concrete.
- As a leveling layer over concrete/mortar ranging from 0.5-3.5mm on vertical or horizontal surfaces.
- Can be used as a moisture barrier (min 2mm thick) allowing epoxy, polyurethane and other solvent based coatings to be applied on floors surfaces which requires dry surface prior to its application.

## ADVANTAGES

- Excellent adhesion to hardened or green concrete in dry or dampen conditions.
- Solvent free and Ideal preparation to obtain smooth finish surface.
- Improves chemical resistance to substrates.
- Protects concrete in aggressive environments.
- Impermeable to liquids but preamble to water vapours.
- Can be used for both in external and internal use.
- Outstanding resistance to water and moisture.

## Application Temperature

The material has to be kept at temperature ranging between **10°C to 30°C**. It has to be ensured that the substrate temperature is maintained in between **10°C to 30°C**. The Relative humidity should be between **20°C to 80°C**.

## Curing

Full cured ~ **4 days** at **+30°C**.

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## PROPERTIES

Form	Epoxy Modified Cementitious Mortar
Aspect	<b>Component A (Resin) : Transparent liquid</b>
	<b>Component B (Hardener): Transparent yellow liquid</b>
	<b>Component C (Filler) : Grey Aggregate powder</b>
Mixing Ratio	<b>Component A (Resin) : Component B(Hardener) : Component C (Filler) :: 4:1:18</b>
Pot Life at 27°C	<b>30min</b>
Over Coating Time at 27°C	<b>8hr</b>
Density at 27°C	<b>Component A (Resin) 1.140kg/l</b>
	<b>Component B (Hardener) 1.070kg/l</b>
	<b>Component C (Filler) 1.300kg/l</b>
	<b>Mixed (A+B+C) 1.900kg/l</b>
Compressive Strength (28 days)	<b>&gt; 45 N/mm<sup>2</sup></b>
Flexural Strength (28 days)	<b>&gt; 5N/mm<sup>2</sup></b>
Chloride Content (EN1015-17)	<b>≤ 0.05%</b>
Sulphate Resistance	High Sulphate Resistance
Modulus of Elasticity	~ 17 Gpa
Coefficient of Thermal Expansion	~ 13.0 µm/m°C
Coefficient of Carbon Dioxide Diffusion	µCO <sub>2</sub> ~ 5400
Capillary Absorption (Water permeability)	≤ 0.5Kg. m <sup>-2</sup> . h <sup>-0.5</sup>
Adhesive bond	≥2.0 Mpa
Restrained Shrinkage/Expansion	≥2.0 Mpa
Capillary absorption & permeability to water	< 0.1Kg. m <sup>-2</sup> . h <sup>-0.5</sup>
Abrasion Resistance (Taber Test)	Weight loss < 3000mg H22 rotation, 1000
(EN ISO 5470-1)	cycles/load 1000g
Permeability to water vapour	Class 1 : SD <5 m (permeable to water vapour)
Impact Resistance (EN ISO 6272-1)	
Adhesion strength by pull-off test (En1542)	≥2.0 N/mm <sup>2</sup> (horizontal with trafficking)
Durability Carbonation resistance (EN 13295)	Pass

**Coverage/Consumption** : Coverage as Screed/Mortar/ Rendering ~ 2.0Kg/m<sup>2</sup>/mm . The coverage is depended on the surface porosity, profile , level variations and wastages.

## Quality of Substrate

The concrete substrate should be sound and hard (**M-25 grade**) with a minimum compressive strength of 25N/mm<sup>2</sup> and a pull off strength of 1.5 N/mm<sup>2</sup>

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## Surface Preparation

### Concrete surfaces

It should be ensured that concrete has attained the design strength and is properly cured. Concrete surfaces should be mechanically prepared or water jetted with high pressure equipment to remove cement laitance, oil and grease contamination if present and obtain a clean dust free surface. Weak concrete to be totally removed and blow holes/voids on the surface if any to be exposed completely. Repair of blow holes/voids and surface leveling to be obtained using **Hind Patch R**. High level spots to be properly grinded.

### Priming

Prior to application of **Hind Cempox (M)** the concrete surface to be pre-wetted with water and should not be allowed to become dry. The surface should not have water accumulation and should be in **Surface Saturated Dry (SSD)** condition.

All type of Surfaces like Green Concrete (as soon as it is suitable for mechanical preparation), Concrete substrate more than 14 days old and Damp old aged concrete with rising moisture is suitable for priming.

### Mixing

Before mixing Component A (Resin) to be shaken properly and then poured into the container of Component B (Hardener) and shaken vigorously for minimum 30 seconds. To the mixed binder (A+B) now Component C (Filler) is added gradually and stirred with a slow speed power mixer (300- 400 RPM) for 3- 4 minutes to achieve a homogenous mix with any lumps. Mix pre-weighted Component (A+B+C) full quantity. Water should not be added.

## APPLICATION

### Hand Application

The mixed **Hind Cempox (M)** is applied on the damp surface and is spread over with a trowel/spatula to obtain the required thickness. If necessary it can be finished with a moist neoprene made sponge or brush.

### Mechanical Application

It can also be sprayed to the surface by using a spray gun or by wet spray techniques. After spraying operation is over it is to be subsequently finished by hand. Additional water is not to be used which may cause improper surface finish.

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New & fresh applied surface with **Hind Cempox (M)** must be protected from rain for the first 24 hours from the time of application. When the surface of **Hind Cempox (M)** becomes tack free vapour permeable sealing coatings can be applied. The surface moisture to be checked which should be less than < 4% before application of vapour tight coatings. Seamless finish is achieved if a **wet** edge is maintained during application.

## SHELF LIFE

**Component A & Component B -12 months, Component C - 6 months**, from the date of manufacturing in unopened conditions. To be stored in a cool and dry place away from direct sunlight at temperature ranging between 2°C (Min.) and 40°C (Max.)

## PACKING

23Kg Kit. (Comp A - 4Kg, Comp B - 1 Kg & Comp. C-18Kg)

## HANDLING PRECAUTION

**Hind Cempox (M)** is non-toxic and ingestion is to be avoided. If contact with skin, eyes occurs wash well immediately with water and seek medical advice.

## IMPORTANT NOTICE :

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