

# CEMART EP MORTAR

## Epoxy Resin Mortar

### Description

CEMART EP MORTAR is a high strength, trowel applied, three component epoxy resin mortar designed for rapid and permanent repairs to concrete and masonry surfaces. The mixed material is applied to a suitably prepared and primed surface, and quickly cures to form a durable, abrasion and chemical resistant repair.

### Typical Uses

Repairs to spalled or damaged concrete, nosings, joint arises etc. Bedding of pre-cast concrete beams, floor repairs and general repairs to cementitious substrates where strength and chemical resistant properties are essential.

### Advantages

- Pre-packed units - ready to use
- Fast curing characteristics
- Impact and abrasion resistant
- Frost resistant and impervious to water
- Excellent mechanical properties
- Unaffected by a wide range of acids, and industrial chemicals
- Negligible shrinkage
- High bond strength
- Cures under damp, cool conditions

### Typical Properties

Colour:	Light grey (other colours available upon request)
Density:	2010 kg/m <sup>3</sup>
Pot Life:	55 minutes @ 20°C
Hard dry time:	16 hours @ 20°C
Full cure:	7 days @ 20°C
Compressive strength:	72N/mm <sup>2</sup> .
Tensile strength:	12N/mm <sup>2</sup> .
Taber abrasion resistance:	40 mg weight loss (CS17 wheels; 1 kg load, 1000 cycles)
Adhesion to concrete:	Greater than 3.9 N/mm <sup>2</sup> . (concrete failure)
Thermal Coefficient of Linear Expansion:	3 x 10 <sup>-5</sup> cm/cm/°C
Maximum Service Temperature:	65°C

### Surface Preparation

Remove all laitance, spalled concrete, grease, oil, dust and other contaminants by scabbling or bush hammering, to provide a sound, clean, substrate. Any exposed reinforcing steel shall be fully exposed by cutting out around its full circumference, and cleaned by abrading or grit blasting to remove rust, scale, etc. Metal substrates shall be degreased and grit blasted to Sa 2.5 Swedish standard.

### Priming

The prepared concrete surface shall be primed by the application of EPOTACKPRIME, which should be brushed well in. A coat of primer should also be applied to any exposed re-bars. N.B. where, following the surface preparation, there will be a delay in application to reinforcing steel or metal substrates, then a coat of CEMART Steelprime must be applied as a holding primer to prevent flash rusting. Subsequent application of the CEMART Tackprimer may then occur after a minimum of 2 hours.

### Mixing

CEMART EP MORTAR is supplied as a three component pack. Each component is pre-weighed and ready to mix. The contents of the Curing Agent should be poured into that containing the Base component and the two liquids thoroughly mixed by spatula or low speed drill /stirrer. The mixed Base and Curing Agent liquid should be drained into a forced action mixer, eg. Mixall, Pennine or Creteangle, and the aggregate component slowly added under constant mixing. Run for 2 to 3 minutes until the components are thoroughly blended to a uniform colour and consistency.

### Application

CEMART EP MORTAR should be applied whilst the primer is still "tacky", which is usually between 10 minutes and 90 minutes after primer application. Apply the CEMART EP MORTAR by tamping and trowelling to ensure good compaction and a tight finish. The material should not be feather edged. Maximum thickness in horizontal applications is 50mm. For vertical applications the material may be built up in layers not exceeding 6mm.

### Equipment Cleaning

Clean all equipment, immediately after use with CEMART TOOLCLEAN.

### Chemical Resistance

**Excellent resistance** to 20% hydrochloric acid, 20% sulphuric acid, 10% citric acid, 25% sodium hydroxide, diesel and petrol.

**Very good resistance** to 10% lactic acid, 50% phosphoric acid, 10% nitric acid and 5% acetic acid.

**Good resistance** to many common industrial chemicals. Please consult our Technical Section regarding specific applications.

### Curing

CEMART EP MORTAR will have hardened sufficiently after overnight cure @ 15 - 20°C to allow full trafficking. Longer periods of cure will be necessary at lower temperatures. Full mechanical and chemical resistant properties will be achieved after 7 days cure @ 20°C.

### Packaging

CEMART EP MORTAR is supplied as a 20 kg pack.

### Coverage

A 20 kg pack will yield 9.86 litres of epoxy mortar, sufficient for 2 m<sup>2</sup> @ 5 mm thickness.

### Storage and Shelf Life

Store in dry conditions at temperatures between 10°C and 25°C and out of direct sunlight. CEMART EP MORTAR has a minimum shelf life of 12 months when stored in original, unopened containers in accordance with the manufacturers instructions.

### Limitations

Do not apply to wet or uncured concrete surfaces. Do not apply at temperatures below 3°C.

### General Guidance

This Data Sheet is for general guidance purposes only and may contain information that is inappropriate for certain conditions of use. Accordingly, all recommendations and suggestions are made without guarantee. Further information is available from our Technical Department. Please consult our Sales Department to confirm that this Data Sheet is the current issue