

# EPOMORT 1000

## ASTM C 881 COMPLIANT, HIGH MODULUS ADHESIVE



### DESCRIPTION

**EPOMORT 1000** is a 100% reactive, 2 component material designed as a moisture insensitive adhesive and binder for numerous application needs. This high modulus material is available in a low viscosity (LV) medium viscosity (MV) or GEL consistency. **EPOMORT 1000** provides normal working time when bonding dry or damp concrete at temperature above 4°C

### FEATURES & BENEFITS

- Excellent adhesive for bonding together concrete, steel, ceramic or wood materials.
- Moisture insensitive for bonding to dry or damp surfaces.
- Bonds fresh concrete topping to hardened concrete slabs.
- Protects concrete substrates against chemical attack including most acids & caustics.
- Forms a tough wear-resistant coating for industrial floor slabs, excellent sealing & dust proofing.
- May be extended with sand or aggregate for thick applications and mortar repairs.
- Designed for use at temperatures of 4°C and above.

### PRIMARY APPLICATION

#### Viscosity formulation

APPLICATION	LV(1)	MV(2)	GEL
Priming	x		
Sealing	x		
Coating		x	
Bond Topping	x	x	
General Adhesive	x	x	x
Anchoring		x	x
Joint Repair Material	x	x	
Non-sag Material			x
Vertical and overhead Coating			x

(1) At temperature above 32°C the medium viscosity formulation may be more suitable for these applications. Gel time will be short.

(2) At Temperature below 15°C the low viscosity formulation may be more suitable for these applications.

### TECHNICAL INFORMATION

#### Typical Engineering Data

Typical Properties of all **EPOMORT 1000** when tested @ 21°C under laboratory conditions.

PROPERTY	EPOMORT 1000
Gel Time	
ASTM C 881 -90	40 minutes
Gel Time	
3.8 liters	20 minutes
Working Time Applied	
over Concrete	90 minutes
Bond Strength	
ASTM C 882	
@ 48 hours	>1,100 psi (>7.5 MPa)
Bond Strength	
ASTM C 882	
@ 14 days	>2,000 psi (>13.8 MPa)
Water Absorption	
ASTM D 570	<0.15%
Durometer ASTM	
D 2240 "D Scale"	70-75
Tensile Strength	
ASTM D 638	>8,500 psi (>58.6 MPa)
Compressive Modulus	
of Elasticity ASTM D 638	1.3 x 10 <sup>6</sup> psi (8965 MPa)
ASTM D 695	>12000psi(>82.8 MPa)

**Shelf Life:** 1 years in unopened containers in warehouse environment.

COVERAGE	Coverage rates m <sup>2</sup> /liter*	APPLICATION	1000 LV	1000 MV	1000 GEL
		<b>Priming &amp; Sealing</b>	9.3 - 11.6	---	---
		<b>Bonding Toppings</b>	---	4.6 - 9.3	5.1- 6.5
		<b>Coating</b>	---	10.2 - 12.5	---
		<b>Repair Mortar 6.4mm</b>	1.8 - 2.2	1.6 - 2.0	1.1 - 1.5
	<b>Note</b> The Coverage rate of each product is highly dependent upon the concrete surface texture, temperature of the material and the concrete. For applicaolving repair mortars, the gradation of the aggregate and the workability desired greatly affects the amount of epoxy required.				
PACKAGING	<b>EPOMORT 1000</b> are two part systems Part A to Part B. The units are pre-proportioned and packaged in 1 gallon kit. <b>EPOMORT 1000</b> is often used as an anchoring material for dowel bars and anchor bolts. Repair mortars can be made with these products by adding aggregate size gradation and the amount of aggregate will be determined by the applications. The user is advised to consider the use of a prepackaged mortar, such as <b>EPOMORT 1000 MORTAR</b> .				

## SPECIFICATIONS / COMPLIANCES

- **EPOMORT 1000 LV** meets the requirements of ASTM C 881-90, type I, II, IV and V, Grade 1, class B & C It is suitable for use under ACI specifications 503.1, 503.2, 503.3 and 503.4
- **EPOMORT 1000 MV** meets the requirements of ASTM C 881-90 Type I, II, IV and V, grade 2, Class B & C. It is suitable for use under ACI specifications 503.1, 503.2, 503.3 and 503.4
- **EPOMORT 1000 GEL** meets the requirements of ASTM C 881-90 Type I, II, IV and V, grade 2, Class B, C, D, E & F. It is suitable for use under ACI specifications 503.1, 503.2, 503.3 and 503.4
- **EPOMORT 1000 LV, MV and GEL** all pass ASTM C 883 and ASTM C 884 requirements.
- **EPOMORT 1000 LV, MV and GEL** are U.S.D.A. approved for use in inspected facilities

## DIRECTIONS FOR USE

### Surface Preparation

New concrete must be a minimum of 28 days old and possess an open, porous and textured surface with all curing compounds and sealers removed. Old concrete must be clean and well textured. All oil, dirt, debris, paint and unsound concrete must be removed. The surface should be prepared mechanically using a scabber, bushhammer, shotblast, scarifier or similar equipment which will give a surface profile commensurate with the application. (Coating applications should have a light sandblast appearance while topping applications should have the surface of the concrete profiled to expose the large aggregate.) The final step in cleaning should be the complete removal of all residue with a vacuum cleaner or pressure washer. Acid etching is acceptable only when mechanical preparation is impractical. It is recommended that only contractors experienced in the acid etching

### process

use this means of surface preparation. The salt of the reaction must be thoroughly washed away. Allow the concrete to completely dry.

### Note

Even with proper procedures, an acid etched surface may not produce a strong bond as produced by other preparation methods.

### Mixing

All materials should be in the proper temperature range of 16°C - 32°C. Mix part A and part B (resin & hardener) for 2 minutes using a drill and mixing prop. For ease of mixing, add the part B to part A (not the reverse). The epoxy must be well mixed to ensure proper chemical reaction.

### Quality Statement

CMCI manufactures its products at their manufacturing facility in Saudi Arabia as per the Quality Procedures certified to conform with quality Management System described in ISO 9000 series

CMCI provides a comprehensive technical support system for its full range of high performance construction products CMCI also offers full technical field support to consultants, Architects, contractors, applicators and End Users.

The Technical Specification information and recommendations given are based on the current technical knowledge and the user or his representative is recommended to check the suitability of the product CMCI reserves the right to amend the technical characteristic of the product as part of ongoing research and development. As the work execution is beyond the direct and continuous control of CMCI no warranty and or responsibility is assumed on the performance of work completion executed with use of our products.

If aggregate is to be added, the aggregate is mixed into the epoxy after the part A and part B have been premixed together. Place immediately.

### Application

(Priming, Bonding, Sealing or Coating) - Use either low viscosity or medium viscosity formulations in these applications. Apply material by roller, squeegee or airless spray in a uniform fashion. Do not allow the material to puddle. Extremely porous surfaces may require a second coat for proper ultimate performance.

### Priming & Bonding

as a bonding agent for a cementitious topping place the topping on the the epoxy is still wet. If the epoxy has become "tacky" to the point where it is no longer a sticky liquid, a fresh coat of applied before the topping is placed.

### Sealing & Coating

**EPOMORT 1000** the first coat should be slightly tacky (4-10 hours old) when the second coat is applied. A slip resistant surface can be created by broadcasting silica sand (20-50 mesh) into the coating and then backrolling to embed the sand. Repair Mortars with **EPOMORT 1000** the repair mortar. Mix the epoxy unit (Part A with Part B) prior to adding the aggregate. Trowel the mortar into place. If the surface is too rough, a topcoat of either be applied.

### CLEAN-UP

Clean tools and equipment with solvent such as CEMTEC SOLVENT, xylene, xylol, toluene or MEK. Do not allow the epoxy to harden on equipment.

### HEALTH & SAFETY

- Avoid contact of epoxy components with skin, eyes etc by wearing suitable protective cloth, safety goggles, safety shoes, gloves etc.,
- In case of contact with eyes, rinse immediately with plenty of clean water and seek medical attention immediately.
- If swallowed seek medical attention immediately. Do not induce vomiting.
- Spillages of epoxy components should be absorbed to earth, sand or other inert matter and transferred to a suitable vessel. Disposal of spillage should be done in accordance with local waste disposal regulations.
- MSDS can be obtained by contacting local CMCI Office.

### "High Quality Construction Chemicals"

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