

CEMTEC TF5000

EPOXY MORTAR SYSTEM

CEMTEC TF5000 is a solvent free three component system consisting of an epoxy resin, hardener and quartz silica filler. This system is tough and resilient when compared to concrete. It has excellent characteristics for floor repairs and resurfacing. **CEMTEC TF5000** is a 100% solid system and may be applied at thickness of 5 mm or greater.

PRIMARY APPLICATIONS

- Warehouses
- Dairies
- Service stations
- Chemical plants
- Metal treating plants
- Machinery service areas
- Food processing and rendering plants
- Factories
- Garages and car repair facilities
- Aeroplane maintenance facilities
- Pile head repairs

FEATURES / BENEFITS

- Provides non-absorbent, non-dusting, chemical resistant surface
- Cures in eight hours
- High tensile and high compressive strength
- Solvent free and V.O.C. compliant

SPECIFICATIONS / COMPLIANCES

- The epoxy system for **CEMTEC TF5000** COMPLIES WITH ASTM C-881-90, TYPE II&IV, GRADE 1, CLASS B & C.

PACKAGING

CEMTEC TF5000 is available in 35 kg units EPOMORT 1000LV primer is in 1 gal units. **CEMTEC TF5000** is available in natural, gray and maroon colors.

YIELD

1 unit of 35 Kg will yield about 17 ltrs.

TECHNICAL INFORMATION

Typical Engineering Data

The following information was developed under laboratory conditions.

	16°C	24°C	32°C
Pot Life on 1 pint mass	50 min	30 min	20 min
Working Time	2 hr	1 1/4 hr	1/2 hr

Mortar Properties

Compressive Strength

ASTM C-579 @ 24°C

1 day	70 MPa
3 days	78 MPa
7 days	80 MPa
28 days	82 MPa

Tensile Strength (ASTM C 307)

9 MPa

Flexural Strength (ASTM C 580)

18 Mpa

CHEMICAL RESISTANCE

Citric acid	10%	Excellent
Tartaric acid	10%	Excellent
Hydrochloric acid	25%	Excellent
Sodium hydroxide	50%	Excellent
Diesel fuel/petrol	100%	Excellent
Sulphuric acid	10%	Very good
Sugar solutions	Saturated	Very good
Lactic acid	10%	Not Resistant
Hydraulic Oil	100%	Very good
Phosphoric acid	10%	Limited
Nitric acid	10%	Not Resistant
Acetic acid	5%	Limited

DIRECTIONS FOR USE

Surface Preparation-New concrete must be a minimum of 28 days old and possess an open surface texture with all curing compounds and sealer removed. Old concrete must be clean and rough. All oil, dirt, debris, paint and unsound concrete must be removed. The surface must be prepared mechanically using a scabbler, bushhammer, shotblast or scarifier which will give a surface profile of a minimum (3 mm) and expose the large aggregate of the concrete. The final step in cleaning should be the complete removal of all residue with a vacuum cleaner or pressure washing.

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 salts of the reaction must be thoroughly pressure washed away. Allow the concrete to dry completely.

NOTE: Even with proper procedures, an acid etched surface may not provide as strong a bond as a mechanically prepared surface.

Joints and Edges-Edges should be sawcut to 6 mm more than the overlay thickness and notched at the edge of the overlay to provide a locked edge. Chip the edge with a hand held chipping hammer to provide the wedge shaped notch. Moving joints as in the case of expansion joints should be brought up through the overlay by sawcutting or with the use of a divider strip. All cracks over 2 mm wide should be routed out to a 6 mm width and 6 mm depth prior to application of the mortar.

Priming - The surface must be primed with EPOMORT 1000 LV PRIMER. After the concrete surface has been prepared as indicated above, apply the primer at the recommended coverage rate. Rough surfaces may require a stiff broom to apply the primer while a relatively smooth, shotblasted surface will allow use of roller application.

Mixing-In order to obtain fully homogeneous mortar, it is essential that the material should be mechanically mixed. The recommended machine is cretangle pan mixer, alternatively a heavy duty slow speed drill running at 300 to 500 rpm utilising a special slotted paddle may be used. The epoxy must be well mixed to ensure proper chemical reaction. After mixing epoxy, add part C (aggregate). Pour the aggregate slowly while mixing for further 3-5 mins., or until aggregates are wetted completely by the epoxy. For large placements, mix the epoxy separately in a 20 ltr. pail then mix the epoxy and aggregate together in a mortar mixer.

Place immediately.

Placement-Fill routed out cracks and cut joints with **CEMTEC TF5000**, then apply the mortar over the rest of the floor. The epoxy mortar shall be applied when the primer is in the 'tacky' stage. Discharge material from mixer and place on to floor. For patching, spread with a trowel, Come-A-Long, or square ended shovel to a thickness of about 3 mm higher than the final desired height of the overlay.

Compact and finish by hand or machine trowel.

Sealing-If desired, the surface may be sealed or topcoated with **EPOMORT 1000 LV**. See "Coverage Rates" above for quantities required.

CLEAN-UP

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

PRECAUTIONS / LIMITATIONS

- Interior use only
- Not recommended in areas where the floor temperature exceeds (66°C) on a continuous basis.
- Solvents used for Clean-up are flammable. Keep away from heat, sparks, open flame or lighted cigarettes.

QUALITY STATEMENT

CMCI manufacture 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 recommendation 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 guaranty and or responsibility is assumed on the performance of work completion executed with use of our products.