

# CEMTEC R44

## MULTIPURPOSE EPOXY GEL

**CEMTEC R44** is a high strength, non-slumping, two component epoxy bedding system. This system is tough and resilient when compared to concrete. It has excellent characteristics for a variety of bedding, gap filling and concrete repair applications. It is widely used for bedding tiles, fixtures, bridge beams, steel bridge bearings etc. It is also used for grouting applications like securing bolts into walls, dowel bars anchoring, filling bolt pockets and fixing of surface ports for crack injection etc. It is easily workable and can be applied by either trowel, spatula or knife. It is resistant to a wide range of commonly met corrosive chemicals like acids, alkalis, salts, oils, greases and petroleum etc. It is widely used for repairing surface defects or honeycombing concrete in horizontal, vertical and overhead applications.

**CEMTEC R44** is also available in (LPL) long pot life and in (CF) coarse finish version.

### FEATURES/BENEFITS

- Forms high strength, non-slump, non-shrink, epoxy bedding system.
- Forms a stiff but easily workable compound
- Good open time
- Resistant to impact and a wide range of corrosive chemicals
- Has strong adhesion to concrete and many other substrates
- Easy mixing with 1:1 ratio

### BASIC USES

- Cracks and pin
- Holes repairs
- Anchoring bolts
- Re bar clowelling
- Resurfacing
- Before epoxy and polyurethane
- Flooring Systems.
- Surface preparation before epoxy coatings.

### SPECIFICATIONS/COMPLIANCES

The epoxy bedding system **CEMTEC R44** complies with ASTM C 881 Type 1, Grade 3 Classes B & C.

### TECHNICAL INFORMATION

Typical Engineering Data

The following information was developed under laboratory conditions.

Compressive

Compressive Strength	65N/mm <sup>2</sup> (ASTM C-579)
Bond Strength	Greater than that of the concrete
Pot life	1 hour 30 minutes at 25°C 45 minutes at 40°C
Tack free time	8 hours at 25°C 2 hours 30minutes at 40°C
Full cure	7 days at 25°C 3 days at 40°C

### CHEMICAL RESISTANCE

Tartaric acid	10%	Excellent
Hydrochloric acid	10%	Excellent
Sodium hydroxide	10%	Excellent
Diesel fuel/petrol		Excellent
Sulphuric acid	10%	Good
Sugar solutions	10%	Excellent
Lactic acid	10%	Excellent
Hydrocarbons	10%	Excellent
Phosphoric acid	10%	Good
Seawater		Excellent
Sewerage		Excellent
Mineral, vegetable animal oils & fats		Excellent
Ammonia		Excellent
Formaldehyde		Excellent
Nitric acid	10%	Good
Acetic acid	5%	Limited

### DIRECTIONS FOR USE

New concrete should have cured until the shrinkage and moisture movement is low 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 must be prepared mechanically using a scabler, 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 only contractors experienced in the acid etching process use this means of the surface preparation. The salts of the reaction must be thoroughly pressure washed away. Allow the concrete to dry completely.

<b>YIELD</b>	CEMTEC R44 is packed as 3kg kits and 50kg kits.
<b>PACKAGING</b>	Each 3 kg kit will yield 1.75 liters.
<b>COLOR</b>	Available in Milke white color

**NOTE:** Even with proper procedures, an acid etched surface may not provide a bond as strong as a mechanically prepared surface. Mix part A and part B (resin & hardener) for 3 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. Fill routed out cracks and cut joints with **CEMTEC R44**, then apply **CEMTEC R44** over the rest of the floor. Trowel **CEMTEC R44** to the required level using the minimum of solvent on the trowel to aid workability. The surface must be finished smooth by use of a paint brush dipped in CEMTEC SOLVENT.

### CLEAN-UP

Clean all tools and equipment with CEMTEC SOLVENT. Do not allow material to harden on the equipment.

### SHELF LIFE

1 year in unopened container.

### HEALTH & SAFETY

- Epoxy components may cause irritation. Avoid contact with eyes and skin.
- Store under cover out of direct sunlight and protect from extremes of temperature.
- Solvents are Flammable. Keep away from heat, sparks, open flame, or lighted cigarettes. Use explosion-proof application equipments

#### 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.

#### "High Quality Construction Chemicals"

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