

REPCON HS

HIGH STRENGTH CONCRETE REPAIR MORTAR

DESCRIPTION

REPCON HS is a single component, high strength concrete repair material. This cement based mortar is designed for repairing structural concrete members by hand troweling or low pressure spraying.

FEATURES & BENEFITS

- One component material ready to use with only addition of clean water
- Helps protect rebar from corrosion
- Applied up to 30 mm per lift
- Very low chloride permeability
- Sulphate resistant
- Very low shrinkage
- High abrasion resistance
- Long working time for easy placement

BASIC USES

- Exterior or interior applications.
- Parking and bridge structures.
- Parapet walls.
- Pre-cast or cast-in place vertical concrete repairs.
- Docks, piers and wharfs.

TECHNICAL INFORMATION

Typical Engineering Data 23°C

The following results were developed under laboratory conditions

Fresh wet density : 2100 kg/m³

Working time : 1:00 Hour

Compressive strength

ASTM C-109 50mm cubes

Age	Strength
1 day	25 N/mm ²
3 days	35 N/mm ²
7 days	45 N/mm ²
28 days	64 N/mm ²

Flexural strength

28 days 1150 psi (8 MPa)

Slant Shear bond Strength ASTM C-882(modified)

28 days 3600 psi (25 MPa)

Water absorption:

ASTM C 642 <2%

Chloride permeability

AASHTO T227

28 day's

385 coulombs

Co-Efficient of the thermal expansion:

10 to 11x10⁻⁶mm/mm/°C

Chemical Resistance:

REPCON HS is highly resistant against: Acid gases, water, Chloride ions.

DIRECTIONS FOR USE

Surface preparation- The concrete must be clean and rough. All oil, dirt, debris, paint and unsound concrete must be removed. The surface must be mechanically prepared using a bush hammer, sand blaster or jack hammer which will give a surface profile of a minimum 3.2 mm and expose the coarse aggregate of the concrete. The final step in cleaning should be the complete removal of all residues with a vacuum cleaner or pressure washing.

Exposed Reinforcing Steel - Exposed rebar may be treated with an anti-corrosive coating such as ZINC RICH PRIMER. Remove all loose rust and scaling, preferably by sand blasting to white metal prior to coating the rebar.

Bonding -The substrate shall be wetted to prevent any moisture evaporation from the bonding agent or from the repair materials. After the surface has been prepared, all areas must be primed with **EPOPRIME LP** or with a slurry coat of **CEMPOL ACRYLIC**. A slurry coat of this product is by mixing the material as indicated in the **CEMPOL ACRYLIC** literature.

Mixing: REPCON HS can be mixed by using a drill and "jiffy" type mixer. Use paddle type mortar mixer for large placements.

Add the appropriate amount of water for the batch size and then add the dry product. Mix a minimum of 5 minutes. The mixed product should be quickly transported to the repair area and placed immediately.

NOTE: This product requires a curing compound which must be ordered separately. Refer to the curing information

COVERAGE	One bag of REPCON HS will cover approximately 1.38 m ² when placed at an average depth of 10 mm. REPCON HS may be placed in thickness from 6 mm to 30 mm in depth per lift
PACKAGING/ YIELD	REPCON HS is packaged in 25 kg bags. Yield is 0.0138 m ³ / bag when mixed with approximately 4 liters of water
COLOR	Contact CMCI Tech Dept.

Placement - Product should be placed up to 30 mm per lift. Trowel into the place before the next lift. If additional lifts will be placed after the product has hardened, crosshatch the surface of the previous lift to provide for a secure bond for the next lift.

Finishing - Finish the repair material to the desired texture to match the surrounding concrete. Do not add additional water to the surface during finishing operation

Curing and Sealing - Proper curing procedures are important to ensure the durability of the repair. To prevent surface cracking, cure the repair mortar with a high solids curing compound such as KUREKOTE 75 VOX.

(NOTE: DO NOT USE A SOLVENT BASED CURING COMPOUND ON THIS PRODUCT)

Allow the curing compound to dry. In hot, windy or direct sunlight situations, apply a second coat of curing compound after the initial coat is dry. If a curing compound is not desired, wet cure for minimum of three days.

Clean-up Clean all tools and equipments with water before the material hardens

PRECAUTIONS/ LIMITATIONS

- In adverse temperatures, follow ACI recommendations of hot/cold weather concreting practices
- Use only potable water for mixing
- Store product in a dry place

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

"High Quality Construction Chemicals"
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