

REPCON SP

RAPID SETTING PATCHING MORTAR

DESCRIPTION

REPCON SP is a rapid setting, rapid hardening cementitious material for patching and repair of concrete surfaces. Requiring only the addition of water, REPCON SP is easy to use and can be installed with standard tools, equipment and procedures. It bonds tenaciously to properly prepared concrete and provides a durable patch.

FEATURES & BENEFITS

- Rapid setting for quick repairs
- Rapid high early strength for quick turnaround time
- Easy to use ; one part system
- Suitable for both interior and exterior applications.
- Versatility in thickness from 13 mm to 203 mm
- Non-shrink

BASIC USES

- Bridge decks
- Airports
- Parking garages
- Pavements and Ramps
- Industrial Floors

SPECIFICATIONS / COMPLIANCES

REPCON SP meets the requirements of:

- ASTM C-928, Standard Specification for Packaged, Dry, Rapid-Hardening, Cementitious Materials for Concrete Repairs.

TECHNICAL INFORMATION

Typical Engineering Data

Compressive Strengths

ASTM C-109, 50 mm cubes

	4°C	22°C
3 hours	1,300 psi (9MPa)	1,400 psi (10 MPa)
1 day	4,000 psi (28 MPa)	5,000 psi (35 MPa)
3 days	4,500 psi (31 MPa)	5,500 psi (38 MPa)
7 days	5,500 psi (38 MPa)	6,000 psi (41 MPa)
28 days	7,000 psi (48 MPa)	7,000 psi (48 MPa)

Will accept wheeled traffic

6-8 hours @ 21°C

Final set time at 22°C: 18 Min

Flow after 5 min per ASTM C-109	105%
Scaling per ASTM C-672	
25 cycles	none
Length change in water at 28 days	
ASTM C-157	+0.102%
Length change in air at 28 days	
ASTM C-157	0.054%

Material Requirements - One unit of REPCON SP will cover approximately 1m² when placed at an average depth of 13 mm. When one unit of material is extended with 11 kg of 9.5 mm pea gravel, the mixed material will cover 1.24 m² when placed at an average depth of 13mm.

NOTE : This product requires a primer bond coat and curing compound which must be ordered separately.

DIRECTIONS FOR USE

Surface Preparation - New concrete must be a minimum or 28 days old if an epoxy adhesive is used to bond the topping. If a slurry bond coat is used, the concrete must be a minimum of 3 days old.

The 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 scabber, bushhammer, shotblast or scarifier which will give a surface profile of a minimum 3.2 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.

NOTE : ACID ETCHING IS NOT ACCEPTABLE.

All concrete must possess an open surface texture with all curing compounds and sealers removed.

Joints and Edges - Edges should be sawcut to 6 mm deeper than the topping thickness and the floor should be notched at the edge of the repair to provide a locked in, reinforced 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 repair by sawcutting or with the use of a divider strip. All cracks over 1.6 mm wide should be routed out to a 6 mm depth prior to application of the mortar.

Exposed Reinforcement Steel - Remove all loose rust and scaling, preferably by sandblasting to white metal prior to coating the rebar. Exposed rebar may

YIELD	One bag of REPCON SP , mixed with 3.13 liter of water, will yield approximately 0.013 m ³ of mortar. REPCON SP may be extended with up to 11.3 kg of 9.5 mm pea gravel per bag for deep areas. Yield 0.016 m ³ per bag.
PACKAGING	Contact CMCI Tech Dept.
COLOR	Contact CMCI Tech Dept.

be treated with an anti-corrosion primer such as Rich Primer

Bonding - After the surface has been prepared, prime all areas with either EPOCHEM or EPOMORT 1000 MV to provide the greatest placement and performance versatility. Follow mixing and applications instructions for the particular primer on the respective product's technical data sheet.

Mixing - Small quantities may be mixed with a drill and "jiffy" mixer. Use a paddle type mortar mixer for large jobs. Add the appropriate amount of water for the batch size and then add the REPCON SP . Mix material for about 2 minutes. The mixed product should be quickly transported to the repair area and placed immediately.

Placement - Discharge material from mixer and place onto floor. For patching, spread with trowel, come-a-long, or square tipped shovel to a thickness that matches the surrounding concrete. Finish by hand troweling.

REPCON SP sets quickly. The time available for placement and finishing will be very limited.

Finishing- Finish REPCON SP to the desired float or broom finish texture. Do not add additional water to the surface during the finishing operation.

Curing and Sealing- REPCON SP requires using in accordance with good concrete practice. Proper curing procedures are important to ensure the durability and quality of the repair. To prevent surface cracking, cure REPCON SP with a high solids curing compound, such as KUREKOTE 75 VOX or CEMTEC KURE N SEAL . In hot, windy or direct sunlight situations, re-wet the surface after the curing compound has dried and cover with polyethylene for a minimum of three (3) days. Curing compound must be ordered separately.

CLEAN-UP

Clean tools and equipment with water before the material hardens.

PRECAUTIONS / LIMITATION

- If used in cold weather, the repair must be kept from freezing for at least 8 hours.
- Do not apply over frozen concrete.
- Do not place material at temperatures below 4°C.
- No heavy traffic until the product has reached a minimum of 2000 psi (14 MPa)

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.

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