

# REPCON S

## TROWEL GRADE VERTICAL / OVER-HEAD CONCRETE REPAIR MORTAR

**REPCON S** is a polymer modified cementitious repair mortar for vertical and overhead concrete and masonry repairs. It sets rapidly to allow quick, easy repairs on concrete surfaces both inside and outside. **REPCON S** is a two component mortar designed for trowel applied repairs.

### PRIMARY APPLICATIONS

- Vertical and overhead patching of spalled concrete
- Resurfacing of damaged concrete
- Repair of honeycombed surfaces
- Parking structures & bridges
- Retaining walls
- Ceilings and sloped surfaces
- Large placements

### FEATURES / BENEFITS

- Fast setting for rapid repairs up to 100 mm in thickness
- Easy to use as a prepacked kit
- Excellent resistance to freeze/thaw cycling and de-icing salts
- Suitable for both interior and exterior applications
- Excellent bond to sound concrete
- High compressive strengths and bond

### SPECIFICATIONS / COMPLIANCE

- **REPCON S** attains a bond strength in compliance with ASTM C 1059-86, Type II systems.

### COVERAGE

One unit of **REPCON S** will cover approximately 2 m<sup>2</sup> when placed at an average depth of 6 mm

Note : This product requires a curing compound which must be ordered separately. Consult the curing information.

### TECHNICAL INFORMATION

#### Typical Engineering Data

The following results were developed under laboratory conditions.

#### **Compressive Strength**

ASTM C-109 50 mm cubes

#### **Age**

1 day	4,000 psi (29 MPa)
3 days	5,000 psi (35 MPa)
7 days	6,000 psi (41 MPa)
28 days	6,500 psi (45 MPa)

#### **Strength**

#### **Bond Strength**

ASTM C-1042, at 22°C

1 day	1,120 psi (8 MPa)
7 days	1,440 psi (9 MPa)
14 days	1,760 psi (12 MPa)

#### **Flexural Strength**

ASTM C-78 (modified)

7 days 1,500 psi (10 MPa)

Working Time : 10 minutes

### PACKAGING / YIELD

**REPCON S** supplied as a 24 kg bag of dry powder and 1 gallon (3.8 liter) of **REPCON S LIQUID** in a matched bag and jug unit. Yield 0.014 m<sup>3</sup> per 28 kg unit.

### DIRECTIONS FOR USE

**Surface Preparation** - New concrete must be a minimum of 3 days old. The 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 scabber, bushhammer, shotblast or scarifier which will give a surface profile of a minimum 3 mm and expose the coarse aggregate of the concrete. The final step in cleaning should be the complete removal of all residue with a vacuum cleaner or pressure washing.

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

**Exposed Reinforcing Steel** - Exposed rebar may be treated with an anti-corrosion coating such as **EPOCHEM** or **ZINCRICH PRIMER**. Remove all loose rust and scaling, preferably by sandblasting to white metal prior to coating the rebar.

**Bonding** - After the surface has been prepared, all areas must be primed with a slurry coat of **REPCON S** or **EPOCHEM**.

**Slurry Coat** - Mix **REPCON S** as instructed but add an additional one pint (0.5 liter) of **CEMPOL ACRYLIC** per unit to the mix. Brush the slurry coat on to the prepared and

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pre-dampened concrete. Apply the **REPCON S** topping before the slurry coat has dried.

**Mixing** - Small quantities may be mixed with a drill and “jiffy” mixer. Use a paddle type mortar mixer for large jobs. NOTE : **REPCON S** HAS A WORKING TIME OF 10 MINUTES. DO NOT MIX MORE MATERIAL THAN CAN BE USED IN THAT TIME FRAME. Add the appropriate amount of **REPCON S LIQUID** for the batch size and then add the dry product. Mix for 2-3 minutes. The mixed product should be quickly transported to the repair area and placed immediately.

**Placement** - Place **REPCON S** while the bond coat is still wet. Trowel **REPCON S** material onto the prepared surface being repaired. Trowel flush with surface and allow to stiffen. Finish to match the surrounding concrete surfaces. Clean tools immediately after use with water.

**Finishing** - Finish the repair material to the desired texture. Do not add water to the surface during the finishing operation.

**Curing and Sealing** - Proper curing procedures are important to ensure the durability and quality of the repair. To prevent surface cracking, cure the repair mortar with a high solids curing compound, such as **KUREKOTE 75 VOX XTRA** (NOTE : A SOLVENT BASED CURING COMPOUND SHOULD NOT BE USED ON THIS PRODUCT.) Apply two coats of curing compound. If a curing compound is not desired, wet cure for a minimum of three days.

#### **CLEAN-UP**

Clean tools and equipment with water before the material hardens.

#### **PRECAUTIONS / LIMITATIONS**

- Do not use at temperatures below 7°C.
- Store material in a dry place, above freezing.
- Cool temperatures slow setting while warm temperatures speed up set times.
- Do not traffic until the product has cured.
- Keep repair from freezing until a minimum strength of 1000 psi (7 MPa) is reached.

#### **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.