

# REPCON SR-VO

## HIGH PERFORMANCE VERTICAL / OVERHEAD CONCRETE REPAIR MORTAR

**REPCON SR-VO** is a polymer and microsilica modified, one component, high strength concrete repair material. This cement-based, high performance mortar is designed for vertical and overhead applications by hand troweling or low pressure spraying.

### PRIMARY APPLICATIONS

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

### FEATURES / BENEFITS

- One component material-ready to use with only the addition of clean water
- Helps protect rebar from corrosion
- Applied up to 50 mm in depth per lift
- Very low chloride permeability
- Sulphate resistant
- Very low shrinkage
- High abrasion resistance.

### PACKAGING / YIELD

**REPCON SR-VO** is packaged in 25 kg bags. Yield is 0.013 m<sup>3</sup> bag when mixed with approximately 4.25 liters of water.

### COVERAGE

One unit of **REPCON SR-VO** will cover approximately 1 m<sup>2</sup> when placed at an average depth of 13 mm. **REPCON SR-VO** may be placed in thicknesses from 6 mm to 50.8 mm in depth per lift.

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

### TECHNICAL INFORMATION

#### **Typical Engineering Data 23°C**

The following results were developed under laboratory conditions.

#### **Compressive Strength**

ASTM C-109 50 mm cubes

#### **Age**

1 day

3 days

7 days

28 days

#### **Flexural Strength**

28 days

#### **Tensile Strength**

28 days

#### **Bond Strength**

3 days

7 days

28 days

90 days

#### **Linear Shrinkage**

ASTM C157, 50% R.H. at 23°C

3 days

7 days

28 days

56 days

90 days

#### **Water Absorption :**

ASTM C 642

Chloride Permeability

AASHTO T227

28 days

#### **Strength**

1,200 psi (8 MPa)

1,600 psi (11 MPa)

3,600 psi (25 MPa)

5,800 psi (40 MPa)

ASTM C348

850 psi (6 MPa)

ASTM C496

890 psi (6 MPa)

ASTM C-882, Modified

800 psi (6 MPa)

1,200 psi (8 MPa)

1,600 psi (11 MPa)

1,900 psi (13 MPa)

-0.021 %

-0.050 %

-0.071 %

-0.068 %

-0.069 %

<2%

385 Coulombs

Co-Efficient of the thermal expansion :

10 to 11 x 10<sup>-6</sup>/°C.

Alkali Content

2.8 kg (±0.3%) m<sup>3</sup>

Chemical Resistance :

**REPCON SR-VO** 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 prepared mechanically using a bushhammer, sandblaster or jackhammer 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 residue with a vacuum cleaner or pressure washing.

**Exposed Reinforcing Steel** - Exposed rebar may be treated with an anti-corrosive 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** - 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 **EPOCHEM, EPOPRIME LP** or with a slurry coat of **REPCON SR-VO**. Produce a slurry coat of this product by mixing the material as indicated below and then add 0.5 liter of water to the mix.

**Mixing - REPCON SR-VO** can be mixed using a drill and “jiffy” type mixer. Use a paddle type mortar mixer for large placements. Note : Most vertical and overhead products stiffen quickly. Do not mix more material than can be placed within 10 minutes.

Add the appropriate amount of water or mixing liquid 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.

**Placement** - Product should be placed in lifts 25 mm to 50 mm in thickness. Trowel into place and allow to stiffen before the next lift. Multiple lifts may be placed as long as the total recommended depth is not exceeded. 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 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 **KURECOTE 75 VOX XTRA**.

(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 a minimum of three days.

## CLEAN-UP

Clean tools and equipment with water before the material hardens.

## PRECAUTIONS / LIMITATIONS

- In adverse temperatures, follow ACI recommendations for hot/cold weather concreting practices.
- Use only potable water for mixing.
- Minimum surface and ambient temperature (7°C) and rising at a time of application.
- Store product in a dry place.

### 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.