



# SOLHYDCRETE AN-RAPIDO

High strength, direct setting concrete  
for deeps repairs

SOLHYDCRETE AN-RAPIDO is a self-compacting concrete with high initial strength and shortened handling time. The spreading and workability of the SOLHYDCRETE AN-RAPIDO makes it easy to set up and finish, while its initial high resistance guarantees a quick turn over of repaired structures. SOLHYDCRETE AN-RAPIDO is dimensionally stable and forms an integral bond with existing concrete to restore its structural integrity. SOLHYDCRETE AN-RAPIDO can be laid at a thickness of 20 mm to 200 mm (3/4 in to 8 in) in a single operation.

## ■ USES

Permanent deep concrete repairs for quick turn over.

### TYPICAL USE:

- Repair of concrete supports and footings
- Rehabilitation of concrete bases
- Repairs to bridge structures
- Rapid repair of floors, walls, concrete columns for industrial use

## ■ PRODUCTS FEATURES

- Very fast and very high initial resistance
- Self-leveling, does not require vibration for its placing
- Very short workability and handling time.
- Dimensional stability
- Meets ASTM C-928 requirements for shrinkage
- High resistance to adhesion
- Applications at different thicknesses
- The material can be easily pumped and placed
- Low shear threshold and moderately high plastic viscosity No bleeding or segregation

## ■ SURFACE PREPARATION

The surface to be repaired must be clean and rough and free from curing agents, oil, grease, delaminated concrete, dirt and dust or any other substance that may impair adhesion. Remove any damaged concrete to obtain a healthy substrate. Mark with a kerf of at least 25 mm around the surface to be repaired. Preparation should be done mechanically to achieve a contoured surface condition (CSP) of 6 - 10 according to ICRI Guideline 310.2. Saturate the surface to be repaired with clean water; remove any standing water before and during the work. The surface must be saturated, superficially dry (SSS). Reinforcing steel must be well cleaned and free of all traces of rust in accordance with SSPC SP10. A gap of at least 25 mm must be released behind any exposed reinforcing steel.

## ■ PRIMING

No primer is required.

## PHYSICAL PROPERTIES OF THE MATERIAL @ 22°C (72°F)

| COMPRESSION RESISTANCE CSA A23.5-5C<br>CYLINDERS 100 MM X 200 MM (4 «X 6») |                             |             |
|--|-----------------------------|-------------|
| 2 hours  | 28.7 MPa                    | (4,162 psi) |
| 3 hours  | 36.0 MPa                    | (4,400 psi) |
| 7 days   | 41.0 MPa                    | (5,980 psi) |
| 28 days  | 46.0 MPa                    | (6,700 psi) |
| RESISTANCE TO FREEZE / THAW CYCLES<br>ASTM C666 PROCEDURE B MODIFIED       |                             |             |
| Cycles   | Facteur de durabilité (RDF) |             |
| 300  | 86.3 %                      |             |
| CURING   |                             |             |
| Workability time minutes   | 12 to 15 minutes            |             |
| Initial setting ASTM C-403   | Min. 22 minutes             |             |
| Final setting ASTM C-403   | Max. 35 minutes             |             |

| ASTM C672 SCALLING RESISTANCE                                  |                      |                                      |
|--|----------------------|--------------------------------------|
| 50 cycles  | 0                    | Loss of 22.7g/m²                     |
| SHRINKAGE CHANGE OF LENGTH<br>ASTM C157 WITH MODIFICATION C928 |                      |                                      |
| Time   | C928Matures with air | Matures with water<br>(in immersion) |
| 5 hours  | -0.053 %             | -0.013 %                             |
| 28 days  | -0.069 %             | -0.010 %                             |
| SPREADING  |                      |                                      |
| Standard CSA A23.5 - 5C  | 550 mm ± 50 mm       |                                      |



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## ■ ESTIMATING / YIELD

SOLHYDCRETE AN-RAPIDO is packaged in 20 kg buckets which gives a yield of 9.7 L when mixed with 2 to 2.2 L of potable water (10.0 to 11.0% per weight of dry mix).

Spreading capacity per bucket of 20 kg:

### SPREADING CAPACITY PER BUCKET OF 20 KG:

| Nominal thickness | Approx. coverage                             |
|-------------------|--|
| 25 mm (1")        | 0.388 m <sup>2</sup> (4.17ft <sup>2</sup> )  |
| 50 mm (2")        | 0.194 m <sup>2</sup> (2.09 ft <sup>2</sup> ) |
| 100 mm (4")       | 0.097 m <sup>2</sup> (1.04 ft <sup>2</sup> ) |

## ■ PRODUCT MIXING

- Place the mixers near the work area.
- The SOLHYDCRETE AN-RAPIDO remains workable for a minimum of 10 minutes.
- Pour 1 part of the water into the container.
- Add 5 parts of SOLHYDCRETE AN-RAPIDO and knead 3 minutes in order to obtain an homogeneous consistency.
- Pour or pump the mixture directly into the formwork on the surface to be repaired.
- For large flows or applications at temperatures below 5°C or above 35°C contact your local BMQ SOLUTIONS representative.

## ■ PRODUCT APPLICATION

### PLACING

SOLHYDCRETE AN-RAPIDO concrete does not require any bonding agent. As soon as the mixing is finished, place the product on the surface to be repaired. Make the placement from one side to the other and not from the middle to the edges.

### FINISH

Smooth and level the material to the desired height. After leveling, the surface can be finished with a trowel of wood or magnesium.

## ■ CURING

As soon as the repaired surface has sufficiently hardened, saturate the surface with water, apply wet burlap and cover with polyethylene for at least 2 hours or apply a ripening membrane as soon as the SOLHYDCRETE AN-RAPIDO has made its final setting.

## ■ PRECAUTIONS / RESTRICTIONS

- Do not apply on fresh concrete
- Do not use a bonding agent
- Do not apply at temperatures below 5°C
- Do not add adjuvant not recommended to this product

## ■ PACKAGING

### SOLHYDCRETE AN-RAPIDO:

20 kg plastic buckets contains

Qty : 36 unit per palette

## ■ RECOMMENDED TOOLS

The following tools will ensure efficient and economical installation:

- Mortar mixer
- Low speed drill (600 rpm) equipped with nested trolley type mixer
- Wood and magnesium trowel

## ■ CLEANING

Use water to clean tools immediately after use.

## ■ STORAGE

Store in a cool dry place. The product can then be kept in closed bags for 12 months.

## ■ SAFETY

See the Material Safety Data Sheet.