

SOLHYDCRETE A.N.-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 CYLINDERS 100 MM X 200 MM (4 "X 6")

2 hrs	28.7 MPa	(4 100 psi)
24 hrs	30.7 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 ASTM C666 PROCEDURE B MODIFIED

Cycles	Sustainability factor (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/m ²
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SHRINKAGE CHANGE OF LENGTH ASTM C157 WITH MODIFICATION

Time	Matures with air C928	Matures with water (in immersion)
5 days	-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 liters of potable water (10.0 to 11.0% per weight of dry mix).

Spreading capacity per bucket of 20 kg:

Nominal thickness	Approx. coverage
25 mm (1")	0,388 m ² (4,17 ft ²)
50 mm (2")	0,194 m ² (2,09 ft ²)
100 mm (4")	0,097 m ² (1,04 ft ²)

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

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 **SOLHYDROC** local 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.

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.