



SOLHYDCRETE C-10

Conventional Concrete Resistant to Freeze-Thaw Weathering
and Plastic Shrinkage Cracking

SOLHYDCRETE C-10 is a conventional concrete resistant to freeze-thaw weathering and plastic shrinkage cracking that produces a permanent repair for existing damaged concrete or can be used for various new construction applications.

It forms an integral bond with existing concrete to restore its structural integrity, when the repair perimeter is square, saw cut and the concrete substrate surface is prepared to an ICRI concrete surface profile (CSP) of 7 to 10, free of micro-cracks, dust, laitance, oil, grease, paint, coatings or other bond breakers, and in a saturated surface dry condition (SSD).

SOLHYDCRETE C-10 can be placed at thicknesses of 35 mm to 400 mm in a single operation.

■ USE

For horizontal or vertical leveling or deep repair with or without formwork.

TYPICAL USES:

Deep repairs to damaged and spalled concrete floors, walls and bases

- Repair sloping and leveling of concrete surfaces.
- Outdoor repair of slab, wall and concrete bases.
- Indoor repair of slab that are not finished with a steel trowel.
- Tunnels, bridges, undergrounds parking, columns and balconies.

■ PRODUCT FEATURES

- Single component
- Reduced plastic shrinkage cracking
- Resistant to crack development
- Freeze/thaw resistant

■ SURFACE PREPARATION

A good repair is achieved when the repair concrete is securely bonded to the base concrete surface. The surface to be repaired must be rough, sound and clean. Liberate the existing concrete surface by mechanical means, from any curing membrane, oil, grease, delaminated concrete, dust, dirt and other substances which could harm the bond. The repair perimeter must be square and saw cut. The concrete substrate surface is prepared to an ICRI concrete surface profile (CSP) of 7 to 10. Prepare the surface and remove the damaged concrete until rough, healthy and clean concrete is obtained. Saturate the concrete surface to be repaired with water for at least 12 hours before applying the concrete to obtain a saturated surface dry condition (SSD). During its application the surface must be well saturated but free from any standing water.

■ PRIMING

No primer required.

■ ESTIMATING/YIELD

SOLHYDCRETE C-10, is packaged in 22.7 kg (50 lbs) bags that yield 10.3 L (0.3637ft³) when mixed with 1.8 liters of clean, potable water.

COVERAGE PER 22.7KG (50LB) BAG:

Nominal Thickness	Approximate Coverage
25 mm (1")	0.4 m ² (4.3 ft ²)
50 mm (2")	0.2 m ² (2.2 ft ²)

■ PRECAUTIONS AND RESTRICTIONS

Apply to pre saturated surface only

- Do not apply on fresh concrete
- Do not use bonding agent
- Do not apply at temperature under 5°C (41°F)
- Do not add admixture to this product, without consulting with a BMQ Solutions technical representative
- Do not use limestone as fill aggregate

PHYSICAL PROPERTIES OF THE MATERIAL @ 21°C (70°F)

COMPRESSIVE STRENGTH CSA A23.2-9C CYLINDERS OF 100 x 200mm (4"x8")

1 day	15 MPa	(2,175 psi)
7 days	24 MPa	(3,480 psi)
28 days	35 MPa	(5,075 psi)

AIR VOID ANALYSIS

Average spacing factor	230 µm
No single result greater than	260 µm

HARDENING

Working time	120 minutes
Initial set time ASTM C403 @ 21°C	5 hours
Final set time ASTM C403 @ 21°C	7 hours

MATERIAL FLOW PROPERTIES @ 21°C (70°F) CSA Standard A23.2

Slump at 5 minutes	80 ± 30 mm
Air content	5-8%
Colour Concrete	Grey



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■ PRODUCT MIXING

Place mixing equipments close to repair area. Approximate initial set of SOLHYDCRETE C-10 is 5 hours @ 21°C (70°F). Therefore mix only an amount that can be placed and finished before initial set. Always mix by adding the dry product to the mixing water. For every 1.8L to 2.0L (0.48 US gal to 0.53 US gal) of water add a bag of SOLHYDCRETE C-10. Use a mortar mixer or ¾" Heavy Duty drill with mixing paddles or a concrete mixer. Place the measured water into a clean mixing container. Slowly and gradually add the powder while mixing for a minimum of 2 to 3 minutes in order to obtain a uniform consistency. Dispense directly into worksite or wheelbarrows. Discard any material that stiffens. Do not retemper. For large pours or for temperatures that are below 5°C (40°F) or above 35°C (95°F), contact your local BMQ Solutions representative.

■ PRODUCT APPLICATION

PLACING:

No bonding agent is required with SOLHYDCRETE C-10, only a clean, rough and saturated surface dry condition (SSD) concrete substrate or empty form. Immediately upon completion of mixing, place material in repair area. Place from one side of area only; not toward middle from opposite directions.

FINISHING:

Level and screed material to proper height. Float edges with wooden or magnesium trowel only.

■ CURING

As soon as the repaired surface has sufficiently hardened apply water and wet burlap or rags to finished area and cover with polyethylene or keep water ponded on patch, for a minimum of 7 days. Wait a minimum of 28 days to cover with paint.

■ PACKAGING

SOLHYDCRETE C-10:

22.7kg (50lbs) bags

Qty: 56 units per pallet

■ RECOMMENDED TOOLS

The following tools will assure a cost effective, satisfactory installation:

- Steel, Wooden or Magnesium Trowels
- ¾" Heavy Duty drill with mixing paddles
- Mortar mixer (for large volume)

■ CLEANING

Use water to clean all tools immediately after use.

■ STORAGE

Store in cool dry area avoiding all moisture. Can be kept in unopened bags for 12 months.

■ SAFETY

See Material Safety Data Sheet.

BMQ SOLUTIONS WARRANTS that the product conforms to its chemical description and is reasonably fit for the purpose stated on its Technical Data Sheet when used in accordance with its directions. BMQ Solutions makes NO OTHER WARRANTY either expressed or implied.
Buyer assumes all risk in handling.

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