SOLHYDROC

SOLHYDBOND ARMATURE

Bonding agent and anti-corrosion coating

SOLHYDBOND ARMATURE is a three-component bonding agent and anti-corrosion coating for reinforcing steel. It is a pre-proportioned kit that contains a water-based epoxy, combined with portland cement that can be used as a bonding agent for placing fresh concrete and repair mortars to existing concrete substrates. **SOLHYDBOND ARMATURE** contains a corrosion inhibitor which protects reinforcement when used as an anti-corrosion coating for steel. **SOLHYDBOND ARMATURE** has a long open time, is non-flammable, VOC compliant, and does not form a water vapor barrier after cure.

PRIMARY APPLICATION

SOLHYDBOND ARMATURE is used as a bonding agent where reinfocing steel is exposed.

- Bonding agent for fresh concrete to existing concrete with exposed reinforcing steel
- Vertical and overhead concrete repairs where reinforcing steel is exposed
- Anti-corrosion coating for steel reinforcement
- Exterior or interior
- On grade or above grade applications

FEATURES AND BENEFITS

- Long open time
- Contains a corrosion inhibitor
- Ease of application (Brush / spray)
- Non-flammable
- Does not form a vapor barrier

SURFACE PREPARATION

The surface must be structurally sound, clean and free of grease, oil, curing compounds, soil, dust and other contaminants. Surface laitance must be removed. Concrete surfaces must be roughened and made absorptive, preferably by mechanical means, and then thoroughly cleaned of all dust and debris. If the surface was prepared by chemical means (acid etching), a water/baking soda or water/ammonia mixture, followed by a clean water rinse, must be used for cleaning, in order to neutralize the substrate. The substrate should be saturated, surface-dry (SSD) prior to application, with no standing water/puddles. Following surface preparation, the strength of the surface can be tested if quantitative results are required by project specifications. An elcometer or similar tensile pull tester may be used in accordance with ASTM D4541, and the tensile pull-off strength should be at least 250 psi (1.7 MPa).

When coating steel, all contamination should be removed and the steel surface prepared to a “near white” finish (SSPC SP10) using clean, dry blasting media.

PRIMER

SOLHYDBOND ARMATURE does not require any primer

COVERAGE

One 14,2L kit of **SOLHYDBOND ARMATURE** will cover approximately 250 ft2 (23.2 m2)

Note: Coverage rates are approximate. Actual coverage depends on temperature, texture, and substrate porosity.

RECOMMANDED TOOLS

The following tools will ensure efficient and economical installation.

- Short nap roller
- Paint brush
- Squeegee Trowel
- Hopper Gun (Marshalltown)

MIXING

Mix **SOLHYDBOND ARMATURE** using a low-speed drill and a mixing paddle. Pre-mix Part A and Part B separately for approximately 1 minute each. Combine all of Part A with all of Part B, then mix thoroughly for 30 to 45 seconds. After the 30 to 45 seconds have elapsed, gradually add all of Part C (powder) into the mixed epoxy, then mix thoroughly for 3 minutes. Scrape the bottom and sides of the containers at least once during mixing. Do not scrape bottom or sides of the container once mixing operations have ceased; doing so may result in unmixed resin or hardener being applied to the substrate. Unmixed resin or hardener will not cure properly. Do not aerate the material during mixing. To keep aeration to a minimum, the recommended mixing paddles are #P1 or #P2 as found in ICRI Guideline 320.5R-2014.

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PHYSICAL PROPERTIES OF THE MATERIAL @ 25°C (77°F)

MIX RATIO	A	B	C
LITERS (A,B) KG (C)	3,8L	3,8L	16,3kg

COMPRESSIVE STRGHT - ASTM C109		
3 days	20 MPa	(2900 psi)
7 days	28 MPa	(4100 psi)
28 days	31 MPa SHORE D	(4500 psi)

SHORE D HARDNESS - ASTM D2240	
28 days	90 to 95

SPLIT TENSILE STRENGHT - ASTM C496		
28 days	more then 4,1 MPa	(600 psi)

POT LIFE	
Pot life, mix of 7,6L	35 to 40 minutes
Drive to the touch	1 hour

FLEXURAL STRENGHT MPa - ASTM C348		
28 days	more then 8.8 MPa	(1280 psi)

BOND STRENGHT, 7 DAYS - ASTM C882		
1 hr open time	17.1 MPa	(2480 psi)
24 hr open time	18.6 MPa	(2700 psi)

WATER VAPOR TRANSMISSION - ASTM E96
0,16 grains/hr . ft2

APPLICATION DU PRODUIT

Bonding agent: Apply one coat, between 20 and 27 mils thick, of **SOLHYDBOND ARMATURE** to the SSD surface using a stiff bristle brush, or spray with a hopper gun at a rate of 60 to 80 ft2/gal (1.5 to 2.0 m2/L). Allow to fully dry (approximately 1 hour) before placing concrete or repair mortars. **SOLHYDBOND ARMATURE** has an open time from 1 to 24 hours at 75°F (24°C).

Anti-corrosion coating: Coat the exposed reinforcing steel, making sure to coat the underside portion of the steel as well. Apply two coats, at 20 mils thick each, of **SOLHYDBOND ARMATURE** to the properly prepared steel using a stiff bristle brush, or spray with a hopper gun at a rate of 80 ft2/gal (2.0 m2/L). Allow 3 to 6 hours between applications. Place subsequent concrete or repair mortars within the open time of the second coat of **SOLHYDBOND ARMATURE** (1 to 24 hours at 75°F (24°C)).

Note: If the applied **SOLHYDBOND ARMATURE** exceeds its open time (see times in "Precautions/Limitations") before the subsequent application of concrete or repair mortar, lightly sand the existing **SOLHYDBOND ARMATURE**, wipe the surface clean, and apply a fresh coat of **SOLHYDBOND ARMATURE** to the area.

PACKAGING

SOLHYDBOND ARMATURE is packaged in kits of
14,2 Liters

CLEAN-UP

Clean tools and application equipment immediately with water. Clean spills or drips with water while still wet. Hardened **SOLHYDBOND ARMATURE** will require mechanical abrasion for removal.

WARNINGS

Please refer to SDS

PRECAUTIONS ET LIMITATIONS

- Store **SOLHYDBOND ARMATURE** indoors, protected from moisture, at temperatures between entre 18 et 27 °C.
- Surface and ambient temperature during applications should be between 7 and 32 °C.
- Material temperature should be at least 7 °C and rising.
- Working time and cure time will decrease as the temperature increases, and will increase as the temperature decreases.
- Do not thin **SOLHYDBOND ARMATURE**
- **SOLHYDBOND ARMATURE** is not to be used as a finished and/or aesthetic coating.
- Do not mix **SOLHYDBOND ARMATURE** for longer than 3 minutes.
- Protect applied **SOLHYDBOND ARMATURE** from wind and excessive heat. These conditions will shorten open time.
- Maximum open time: 12 hours à 32 °C, 24 hours à 24 °C, 30 hours à 7 °C.
- Do not use **SOLHYDBOND ARMATURE** as a surface bonding agent for toppings with concrete or cimentitious repair materials. Use **SOLHYDBOND E** seeded with sand for bonding in these applications.
- In all cases, consult the product safety data sheet before use

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

For Professional Use Only

www.solhydroc.com

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