



# SPECIALTY CONSTRUCTION PRODUCTS LTD.

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## ACRL-STIX CONCRETE BONDING AGENT

### DESCRIPTION

**ACRL-STIX** is a water dispersion of an acrylic polymer specifically designed for modifying Portland cement compositions. Unlike some latex bonding agents, **ACRL-STIX** will not re-emulsify when exposed to moisture.

### USES

**ACRL-STIX** because of its makeup has a wide range of applications in the concrete field. Its prime function is for thin overlays, patching of spalled concrete, bonding new section of concrete to old, etc.

**ACRL-STIX** can be used both as a primer, as well as an additive to mortar or concrete. **It is most important that when used as a primer, the maximum water ratio to ACRL-STIX should not exceed a 1:1 ratio for the solution.** As a wetting agent to the mortar or concrete mix, the mix ratio may vary depending on the application. Best bonding results are attained when ACRL-STIX is used with Type GU normal Portland cement as a slurry; the mix ratio should be a 1:1 ACRL-STIX/ water . one part solution with one part cement.

### APPLICATION

The surface to receive a new overlay of concrete or mortar should be shotblasted to ICRI CSP5 specification, be free of dust, greases, oils and other foreign matter that may impair the bond. After all cleaning has taken place, the surface should be saturated but surface free of moisture. The surface should then be primed with **ACRL-STIX**/Cement slurry as indicated in the above section, One part mixed solution (1:1 **ACRL-STIX**/Water) with one part cement, applied by spray or coarse stable broom scrubbed into the bonding surface. Coverage will vary dependent on surface roughness and porosity.

#### THIN RESURFACING, TOPPINGS and OVERLAYS

- Pre-wet the concrete surface to obtain a saturated surface dry (SSD) floor
- Use one part mixed solution (1:1 **ACRL-STIX**/Water) with one part Type GU cement.
- Apply mixed slurry uniformly throughout as a bond coat . 1.5mm to 2mm thick
- Do not allow bond slurry to dry out before topping is applied.
- All mixtures are based on a volume measurement.

#### ANCHOR BOLT GROUTING

- Use one (1) part **ACRL STIX** concentrate with two (2) parts Type GU cement for anchor bolts and dowels.

#### OPTIONAL

- **ACRL-STIX** can be added to normal concrete mixes for special applications. Consult manufacturer for recommendations.
- **ACRL-STIX** added to normal concrete mixtures:
  - o Reduces permeability of Chloride Ions
  - o Increases Abrasion Resistance
  - o Improves Curing by moisture retention of the concrete mix.
  - o Increases the ultimate compressive and flexural strength.

## **CURING ADVANTAGES**

**ACRL-STIX** has no known detrimental effects on concrete or mortars containing water-reducers, retarders, accelerators or air-entraining admixtures. When used in conjunction with air-entrained concrete, air tests should be conducted to verify the maximum air content in certain types of concrete mixtures in accordance with ASTM C-231.

## **MIXING**

Pour diluted **ACRL-STIX** mixture into a clean container or mixer, and then slowly add dry powder cement or mortar mix and mix to uniform consistency. When using mechanical mixers - do not over mix. A fluid consistency is suggested for thin bond coats, and a stiff mix is suggested for deep fills. Do not mix more material than can be placed in 20 minutes.

## **BOND SLURRY APPLICATIONS**

Brush or spray a fluid bond slurry mixture into the surface to eliminate air pockets and provide bond.

## **COVERAGE**

Coverage will vary depending on surface roughness and porosity. Typically a 10 liter mixed slurry solution will cover 20m<sup>2</sup> (200 ft<sup>2</sup>).

One 4 liter container of **ACRL-STIX** concentrate will yield a 10 liter solution of bond slurry - One part mixed solution (1:1 **ACRL-STIX**/Water) with one part GU cement.

## **STORAGE ADVANTAGES**

**ACRL-STIX** excels greatly in this area over competitive latex bonding agents. **ACRL-STIX** is sediment free and stable to a maximum of five cycles of freezing at -15°C and thawing at 25°C. Competitive products must be discarded after freezing in most cases.

## **CAUTION**

- Do not use **ACRL-STIX** additive when temperatures are below +4°C (40°F) or if expected to fall below that level within 48 hours.
- Do not use in areas subject to gasoline or solvents.
- Do not use pure **ACRL-STIX** as a bonding adhesive.
- Do not FREEZE.

## **PACKAGING**

205 liter       20 liter       4 liter

Recommendations for the use of this product are based on tests we believe to be reliable, but the accuracy and completeness is not guaranteed. In addition, design of application and conditions during and of installation are beyond the manufacturer's control. Before using, users shall determine suitability of the product for his intentions. The following is made in lieu of warranties expressed or implied; manufacturer's only obligation shall be to replace such quantity of the product that has proved to be defective.