

# SCB CONCRESlVE® 1422

*Paste epoxy bonding agent*

## DESCRIPTION:

SCB CONCRESlVE® 1422 is a two-component epoxy bonding agent for general purpose bonding where applied loads are short term or of moderate intensity. For use below freezing or for rapid cure in moderate environments.

## RECOMMENDED FOR:

- Anchoring dowels and rebars
- Bonding hardened concrete to hardened concrete
- Bonding steel and other rigid material to hardened concrete
- Pinning loose and broken masonry
- Fairing uneven surfaces, filling gaps and joints

## FEATURES/BENEFITS:

- Cures quickly at moderate temperatures
- Cures down to 15 °F (-9 °C)
- Excellent for overhead and vertical applications
- Bonds to “can’t dry” substrates (above freezing)

## PACKAGING/ESTIMATING:

SCB CONCRESlVE 1422 is packaged in 1 and 10 U.S. gal (3.8 and 38 L) units.

### Coverage Rates are as follows:

Smooth surfaces - 12 ft<sup>2</sup>/gal (0.29 m<sup>2</sup>/L)

@ 1/8 in. (3mm) thick

Rough surfaces - 6 ft<sup>2</sup>/gal (0.15 m<sup>2</sup>/L)

@ 1/4 in. (6 mm) thick

## PERFORMANCE DATA<sup>1</sup>:

<b>Mix Ratio</b> , by volume				1:1
<b>Form</b>				Paste
<b>Color</b>	Part A White	Part B Black	Mixed Gray	
<b>Density</b> , lb/gal (g/ml)				11.3 (1.34)
		<b>25 °F (-4 °C)</b>	<b>40 °F (4 °C)</b>	<b>70 °F (21 °C)</b>
<b>Pot Life</b> , minutes (100 grams)	70	30	15	
<b>Open Time</b> <sup>2</sup> , minutes (Min.)	80	50	15	
<b>Non Sag Thickness</b> , (ASTM D 2730)	1/4 in. (.01cm)	1/8 in. (.32cm)	1/8 in. (32cm)	
<b>Cure Time</b>				
Initial Cure <sup>3</sup> , hours (AASHTO T 237)	5	2.5	1.5	
Full Cure <sup>4</sup> , hours (ASTM D 695)	24	5	3	
<b>Tensile Strength</b>				4,000 psi (37.6 MPa)
<b>Elongation at Break</b> , % (ASTM D 638)				0.4
<b>Compressive Strength</b> (ASTM D 695)				9,000 psi (62.1 MPa)
<b>Compressive Modulus</b> (ASTM D 695)				2.4 x 10 <sup>5</sup> psi
<b>Heat Deflection Temperature</b> (ASTM D 648)				115 °F (46 °C)

<sup>1</sup> The properties listed on this data sheet are typical and descriptive. Cure time 7 days; test and cure temperature 77 °F (25 °C).

<sup>2</sup> From start of mixing to joining of parts to be bonded.

<sup>3</sup> 5,000 psi minimum.

<sup>4</sup> Isothermal cure to eliminate effect of exotherm.

## APPLICATION:

**Concrete Surfaces** - Substrates may be dry or damp, although optimum results are obtained on a dry surface. New concrete must be fully cured (28 day minimum).

Remove grease, wax oil contaminants and curing compounds by scrubbing with an industrial grade detergent, a degreasing compound or a solvent strong enough for complete removal, then follow with a mechanical cleaning.

Remove weak, contaminated or deteriorated concrete by shotblasting, bushhammering, scarifying or other suitable means. Follow mechanical cleaning with vacuum cleaning. Acid-etching should only be used if there is no practical alternative. Acid-etching must be followed by pressure washing, scrubbing and flushing with copious amounts of clean water. Check for the removal of acid with moist pH paper. Reading should be greater than 10.

**Steel Surfaces** - Remove dirt, grease, and oil with suitable industrial grade cleaning or degreasing compounds. Remove rust and mill scale by gritblasting. Blast steel to white metal. Follow gritblasting with vacuuming or oil free, dry air blast.

**General Bonding** - Deep surface irregularities can be faired with a 1:1 sand to epoxy mix. Allow this fairing material to set. Within 24 hours, apply neat CONCRESLIVE 1422 with a trowel in sufficient quantities to fill all gaps between mated surfaces. The bondline thickness should be between 1/32 in. and 1/8 in. (1.5 mm and 3 mm). Ideally, a small amount of bonding agent should be extruded from the joint when surfaces are mated and pressure is applied. Surfaces must be mated while the paste is still tacky (within open time).

**Moisture** - Bonding to clean damp surface is possible but less desirable than to a dry surface. When applying this product to a damp surface, remove water with an oil-free air blast.

### Bolt And Rebar Grouting

**Drilling** - Best results are obtained when the holes are cut by rotary-percussion drilling. After drilling, the holes should be scrubbed with a stiff, nonmetallic brush and blown out with oilfree compressed air. Where the holes are precast into the concrete, cast them undersize, then drill to fit.

**Hole Sizing** - The recommended diameter of the hole is 1/4 in. (6 mm) larger than that of the bar; larger or smaller annular space is less desirable.

**Application** - Install a measured amount of the bonding adhesive into the bottom of the hole with a caulking gun equipped with an extension nozzle. Insert the bar, displacing the paste, then secure it in the center of the hole. Remove excess bonding agent from around the hole before it hardens. For grouting holes deeper than 2 ft (0.6 meter), pressure grouting is recommended.

## LIMITATIONS:

- Application temperature range is 15 °F to 70 °F (-9 °C to 21 °C).
- Shelf Life is 18 months minimum when stored at temperatures below 90 °F (32 °C).
- Do not add water or solvents to epoxy components.
- Non-sag characteristics will diminish at the upper end of the application temperature range. For structural use above 110 °F (43.3 °C) service temperature, sustained load conditions must be evaluated before selection of CONCRESLIVE 1422.
- Mixed epoxy is much easier to clean up before it hardens - solvents such as acetone, methyl ethyl ketone (MEK) or toluene may be used. Commercial epoxy strippers or commercial solvents are recommended for hardened epoxy. Consult solvent manufacturer's usage recommendations.
- This product should be used by qualified personnel for recommended applications in accordance with the previously described procedures. Components may be flammable or combustible, therefore, extinguish open flames prior to use.
- Ensure adequate ventilation. Wash thoroughly after handling. The use of barrier creams is recommended. Clean rubber gloves or disposable polyethylene gloves should always be worn.

## RELATED BULLETINS:

SCB CONCRESLIVE 1422 – Material Safety Data Sheet  
Master Builders Specification Bulletin 6S2

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