

# SCB CONCRESlVE® 1380

*Structural Concrete Bonding Process injection resin*

## DESCRIPTION:

SCB CONCRESlVE® 1380 meets ASTM C 881-87, Type IV, Grade 1, Classes B and C. This is a two-component, solventless, low viscosity liquid epoxy adhesive for pressure injection grouting. SCB CONCRESlVE 1380 was developed specifically for use with the Structural Concrete Bonding (SCB) Process and is available only through certified applicators of this process.

## RECOMMENDED FOR:

- Structurally re-bonding cracked concrete sections
- Re-bonding delaminated concrete toppings
- Filling porous or honeycombed concrete or grout
- Anchoring bolts, dowels, and reinforcing bars
- Pressure grouting voids prepacked with aggregate to form bearing pads

## FEATURES/BENEFITS:

- Excellent adhesion under adverse conditions, such as of low temperatures and/or damp concrete
- High Heat Deflection Temperature (HDT) providing increased resistance to creep and stress relaxation
- Fast cure rate

## PACKAGING/ESTIMATING:

SCB CONCRESlVE 1380 is packaged in a 3 gal (11 L) unit.

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

| Property   | Product Test Data                        | C 881 Spec. Type IV Grade 1                                 |
|--|--|---|
| Viscosity, poise<br>(ASTM D 2393)                        | 4.65                                     | 20 maximum  |
| Gel Time, minutes<br>(ASTM C 881)                        | >60 @ 40 °F (4 °C)<br>14 @ 77 °F (25 °C) | 30 minutes min. <sup>2</sup><br>5 minutes min. <sup>2</sup> |
| Bond Strength, psi<br>(ASTM C 882)                       | 3,070 @ 14 day<br>2,490 @ 2 day          | 1,500 @ 14 day<br>1,000 @ 2 day                             |
| Absorption, %<br>(ASTM D 570)                            | 0.45                                     | 1.0 max.  |
| Linear Coefficient of Shrinkage on Cure<br>(ASTM D 2566) | 0.00024                                  | 0.005 max.  |
| Compressive Strength, psi<br>(ASTM D 695)                | 16,140                                   | 10,000 min.   |
| Compressive Modulus, psi<br>(ASTM D 695)                 | 5.35 x 10 <sup>5</sup>                   | 2.0 x 10 <sup>5</sup>                                       |

## Heat Deflection

Temp., °F134 120 min.  
(ASTM D 648)

Mix Ratio by volume 2:1  
by weight 100:44

Form Liquid

|  | Part A<br>Amber | Part B<br>Black | Mixed<br>Black |
|--|-----------------|-----------------|----------------|
|--|-----------------|-----------------|----------------|

| Density @ 77 °F (25 °C) | Part A<br>Amber | Part B<br>Black | Mixed<br>Black |
|-------------------------|-----------------|-----------------|----------------|
| lb/gal                  | 9.7             | 8.3             | 9.3            |
| g/ml                    | 1.16            | 0.98            | 1.10           |

| Viscosity, cps | Part A<br>Amber | Part B<br>Black | Mixed<br>Black |
|----------------|-----------------|-----------------|----------------|
| 40 °F (4 °C)   | 7,700           | 1,200           | 4,400          |
| 77 °F (25 °C)  | 640             | 190             | 350            |
| 100 °F (38 °C) | 260             | 75              | 150            |

## Curing Characteristics

| Pot Life @ 60 grams mass |             |
|--------------------------|-------------|
| 77 °F (25 °C)            | 19 minutes  |
| 100 °F (38 °C)           | 8.5 minutes |

| Thin Film Tack Free Time |         |
|--------------------------|---------|
| 5 mils @ 77 °F (25 °C)   | 3 hours |

| Thin Film Full Cure Time |        |
|--------------------------|--------|
| 5 mils @ 77 °F (25 °C)   | 3 days |

| Thin Film Full Cure Time |        |
|--------------------------|--------|
| 5 mils @ 40 °F (4 °C)    | 6 days |

## Physical Properties of Cured Material<sup>3</sup>

| Tensile Strength<br>(ASTM D 638) |                       |
|----------------------------------|-----------------------|
|                                  | 9,000 psi (62.10 MPa) |

| Elongation at Break, %<br>(ASTM D 638) |     |
|--|-----|
|  | 2.5 |

| Flexural Strength<br>(ASTM D 790) |                       |
|-----------------------------------|-----------------------|
|                                   | 12,000 psi (82.8 MPa) |

| Flexural Modulus<br>(ASTM D 790) |   |
|----------------------------------|---|
|                                  | 6.0 x 10 <sup>5</sup> psi (4.1 x 10 <sup>3</sup> MPa) |

<sup>1</sup> The properties listed on this data sheet are typical and descriptive.

<sup>2</sup> The purchaser may specify a minimum gel time of 5 minutes for Type IV when automatic proportioning, mixing and dispensing equipment is used.

<sup>3</sup> Cure time, 7 days; test and cure temperature 77 °F (25 °C)

**Compressive Strength** 16,000 psi (110MPa)  
(ASTM C 695)

**Compressive Modulus** 2.3 x 10<sup>5</sup>psi (1.6 x 10<sup>3</sup> MPa)  
(ASTM C 695)

**Heat Deflection Temperature** 134 °F (59 °C)  
(ASTM D 648)

**Slant Shear Strength**  
(AASHTO T 237)

3 days @ 40 °F 4,000 psi 80% Adhesive  
(4 °C), wet (27.6 MPa) Failure

7 days @ 40 °F 4,500 psi 100% Concrete  
(4 °C), wet (31 MPa) Failure

1 day @ 77 °F 5,000 psi 100% Concrete  
(25 °C), dry (34.5 MPa) Failure

**RELATED BULLETINS:**

SCB CONCRETE 1380 – Material Safety Data Sheet  
Master Builders Specification Bulletin 6S1 and 6S3

**APPLICATION:**

SCB CONCRETE 1380 Injection Resin and the SCB Process are available only through certified applicators of this process. Consult your local Master Builders office for the applicator near you.

**LIMITATIONS:**

- Application temperature range is 40 °F to 100 °F (4 °C to 38 °C).
- Shelf life is 18 months (minimum) in sealed containers stored between 32 °F and 90 °F (0 °C and 32 °C). After 18 months, consult Master Builders or retest product to material specification.
- This product should be used by qualified personnel for recommended applications.
- Mixed components contain chemical compounds which may cause allergic skin and respiratory reaction. Harmful if swallowed. Do not get into eyes, on skin or on clothing. Use only with adequate ventilation. Wash thoroughly after handling.
- The use of barrier creams such as Kerodex No. 71 or Indco Labs No. 211, 213, or 214 is recommended. Clean latex rubber gloves or disposable polyethylene gloves should always be worn. Should skin contact occur, wash immediately with soap and cold water, Epocleanse 6001 or other suitable hand cleaner.

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