

## PRODUCT DATA SHEET

# Sikadur<sup>®</sup>-31 SBA Normal Set

High-modulus, high-strength, moisture tolerant, epoxy paste adhesive

### PRODUCT DESCRIPTION

Sikadur<sup>®</sup>-31 SBA Normal Set is a unique high-modulus 2-component, moisture-tolerant, solvent-free, epoxy resin system available in three application temperature ranges. A unique high-modulus, structural adhesive for bonding hardened concrete to hardened concrete for segmental bridge construction. The mixed material has the consistency of paste and is a concrete gray color. It conforms to the current ASTM C-881, Type VI requirements, and ASBI guidelines.

### USES

Sikadur<sup>®</sup>-31 SBA Normal Set may only be used by experienced professionals.

- Structural bonding of post-tensioned precast concrete bridge segments
- Sealing joints between concrete segments
- For use in segment-by-segment erection
- Supplied in three temperature grades to meet project requirements. (For cold weather conditions, refer to separate technical data sheet on Sikadur<sup>®</sup> 31, SBA [20°-45°F].)

### CHARACTERISTICS / ADVANTAGES

- Moisture tolerant before, during and after cure
- High-modulus, high-strength, structural paste adhesive
- Range of curing times to meet assembly and strength gain requirements
- Easy to apply, non-sag paste for vertical applications
- Excellent adhesion to concrete, steel and most construction materials
- Convenient easy to mix ratios. A:B=2:1 by volume
- Color-coded components to ensure proper mixing control

### PRODUCT INFORMATION

<b>Packaging</b>	3 gal. (11 L) units
<b>Color</b>	Concrete gray
<b>Shelf Life</b>	24 months in original, unopened containers
<b>Storage Conditions</b>	Store dry at 40–95 °F (4–35 °C). Condition material to 70–75 °F (21–24 °C) before using.
<b>Consistency</b>	Non-sag paste

## TECHNICAL INFORMATION

Compressive Strength	<b>SBA NS</b>	<b>SBA NS</b>	<b>SBA NS</b>	(ASTM D-695)
	<b>40–60 °F</b>	<b>55–95 °F</b>	<b>80–115 °F</b>	
	<b>(4–15 °C)</b>	<b>(13–35 °C)</b>	<b>(27–46 °C)</b>	
24 hours	2,000 psi (13.8 MPa)	2,000 psi (13.8 MPa)	2,000 psi (13.8 MPa)	
48 hours	6,000 psi (41.3 MPa)	6,000 psi (41.3 MPa)	6,000 psi (41.3 MPa)	

  

Tensile Adhesion Strength	<b>Bond Strength</b>	<b>Hardened Concrete to Hardened Concrete</b>	(ASTM C-882)
	2 day (moist cure)	1,000 psi, minimum (6.9 MPa)	

  

Heat Deflection Temperature	<b>ASTM C-881 Spec.</b>	<b>SBA NS</b>	<b>SBA NS</b>	<b>SBA NS</b>	(ASTM D-648)
		<b>40–60 °F</b>	<b>55–95 °F</b>	<b>80–115 °F</b>	
		<b>(4–15 °C)</b>	<b>(13–35 °C)</b>	<b>(27–46 °C)</b>	
	> 120 °F (49 °C)	> 120 °F (49 °C)	> 120 °F (49 °C)	> 120 °F (49 °C)	

## APPLICATION INFORMATION

Mixing Ratio	<b>Product name</b>	<b>Temperature Range</b>	<b>Mix Ratio</b>
	Normal Set (40–60 °F, 4–15 °C)	40–60 °F (4–15 °C)	2:1, A:B by volume
	Normal Set (55–95 °F, 13–35 °C)	55–95 °F (13–35 °C)	2:1, A:B by volume
	Normal Set (80–115 °F, 27–46 °C)	80–115 °F (27–46 °C)	2:1, A:B by volume

  

Coverage	Approximately 12 ft <sup>2</sup> /gal. or 36 ft <sup>2</sup> /3 gal. unit.		
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Pot Life	<b>SBA NS 40–60 °F</b>	<b>SBA NS 55–95 °F</b>	<b>SBA NS 80–115 °F</b>	(ASTM C-881)
	<b>(4–15 °C)</b>	<b>(13–35 °C)</b>	<b>(27–46 °C)</b>	
	~60 min	~60 min	~60 min	

  

Open Time	<b>SBA NS 40–60 °F</b>	<b>SBA NS 55–95 °F</b>	<b>SBA NS 80–115 °F</b>	(ASTM C-881, contact strength after open time, 2 day, psi)
	<b>(4–15 °C)</b>	<b>(13–35 °C)</b>	<b>(27–46 °C)</b>	
	1 h	1 h	1 h	
	1000 psi (6.9 MPa)	1000 psi (6.9 MPa)	1000 psi (6.9 MPa)	

## APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

Surface must be clean and sound. It may be dry or damp, but free of standing water and frost. Remove dust, laitance, grease, curing compounds, impregnations, waxes, foreign particles, disintegrated materials and any other contaminants.

### MIXING

**Pre-mix each component.** Wear chemical resistant

gloves and safety goggles. Mix all of Part 'A' with all of Part 'B'. Mix thoroughly for a minimum of 3 minutes with a low-speed (400–600 rpm) drill fitted with a mixing Sika paddle until a uniform gray color is achieved. Scrape down the sides of the mixing pail and ensure there are no streaks of unmixed epoxy before applying. Mix only that quantity which can be used within its pot life.

### APPLICATION METHOD / TOOLS

Apply the neat mixed Sikadur®-31 SBA Normal Set to the concrete surface using a trowel, spatula or glove protected hand; work into surface, especially if it is

damp. Spread to a thickness of 1/8 in. (3 mm) to one face or 1/16 in. (1.5 mm) on both faces, depending upon project requirements. Segments must be post-tensioned within the open time of the epoxy.

Removal: Ventilate area. Confine spill. Collect with absorbent material, flush area with water. Dispose of in accordance with current, applicable local, state and federal regulations. Uncured material can be removed with approved solvent. Follow solvent manufacturer's instructions for use and warnings. Cured material (when combined with component 'B') can only be removed mechanically.

## LIMITATIONS

- Do not thin Sikadur®-31 SBA Normal Set. Solvents will prevent proper cure
- Use correct temperature range material for prevailing conditions
- Use correct setting material (normal or slow) depending on method of erection
- Not for use as an adhesive for fresh, plastic portland cement concrete or mortar
- Lower temperatures will prolong cure time. Higher temperatures will rapidly accelerate cure time
- Use of product outside of designated temperature range is not recommended
- Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure

## BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

## OTHER RESTRICTIONS

See Legal Disclaimer.

## ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

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### Product Data Sheet

Sikadur®-31 SBA Normal Set  
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## LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

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