

## PRODUCT DATA SHEET

# Sikadur<sup>®</sup>-31 SBA Cold Weather

HIGH-MODULUS, HIGH-STRENGTH, MOISTURE TOLERANT, EPOXY PASTE ADHESIVE

### PRODUCT DESCRIPTION

Sikadur<sup>®</sup>-31 SBA Cold Weather (20° - 45°F) is a 2-component, cold weather, 100% solids, moisture-tolerant, high-modulus, high strength, structural epoxy paste adhesive for bonding hardened concrete to hardened concrete in segmental bridge construction. It conforms to the current ASTM C-881, Type VI requirements, and AS-BI guidelines.

### USES

Sikadur<sup>®</sup>-31 SBA Cold Weather 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.
- Segmental bridges in cold weather temperatures 20°-45°F (-6°-7°C).

### CHARACTERISTICS / ADVANTAGES

- Moisture tolerant before, during and after cure.
- High-modulus, high-strength, structural paste adhesive.
- 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. units.
<b>Color</b>	Concrete gray
<b>Shelf Life</b>	2 years in original, unopened containers
<b>Storage Conditions</b>	Store dry at 40°-95°F (4°-35°C). Condition material to 20°- 45°F (-6°-7°C) before using.
<b>Consistency</b>	Non-sag paste

## TECHNICAL INFORMATION

<b>Compressive Strength</b>	3 day	2,000 psi, minimum (13.8 MPa)	(ASTM D-695) conditioned at 45°F (7°C)
	7 day	6,000 psi, minimum (41.4 MPa)	cured at 20°F (-6°C)
<b>Slant Shear Strength</b>	<b>Bond Strength: Hardened Concrete to Hardened Concrete</b>		
	2 day	1,000 psi, minimum (6.9 MPa)	(ASTM C-882) moist cure @ 45°F (7°C)
	<b>Contact Strength</b>		
	48 hours at 45°F (7°C)	1,000 psi, minimum (6.9 MPa)	(ASTM C-882)
<b>Heat Deflection Temperature</b>	7 day	[fiber stress loading = 264 psi (1.8 MPa)] 120°F (49°C), minimum	(ASTM D-648) 73°F (23°C)

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	2:1
<b>Coverage</b>	Approximately 12 ft. <sup>2</sup> /gal. or 36 ft. <sup>2</sup> /3-gal. unit.
<b>Product Temperature</b>	20°-45°F (-6°-7°C)
<b>Pot Life</b>	(1 gallon mass) Less than 3 minutes @ 73°F (23°C). Approximately 20 minutes @ 45°F (7°C).
<b>Open Time</b>	60 minutes @ 45°F (7°C).

## 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, ice and any other contaminants.

### MIXING

**Pre-mix each component.** Mix all of Part 'A' with all of Part 'B' until a uniform gray color is achieved. Mix thoroughly for a minimum of 3 minutes with a Sika paddle on low-speed (400- 600 rpm) drill until uniform in color. 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. Leaving the mixture of Component 'A' and 'B' in container longer than 20 minutes (pot life) will allow mixture to begin the curing process in the container. Spread mixture onto intended surface as soon as properly mixed. Leaving curing product in mixing container will affect the consistency and workability of the adhesive.

### APPLICATION METHOD / TOOLS

Apply the neat mixed Sikadur® 31, SBA to the concrete surface using a trowel, spatula or glove protected hand. Spread to a thickness of 1/8" (3 mm) to one face or 1/16" (1.5 mm) to both faces, depending upon project requirements. Segments must be post-tensioned within the open time of the epoxy.

### LIMITATIONS

- Mixed material must be applied within the specified pot life.
- Do not thin Sikadur® 31, SBA. 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.
- Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure.
- **Do not apply onto concrete if frost is present.**
- **Do not use in temperatures greater than 45°F (7°C). Pot life, open time and consistency will be greatly affected.**

## 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.

## LEGAL DISCLAIMER

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

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at [usa.sika.com](http://usa.sika.com) or by calling SIKA's Technical Service Department at 800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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