



PRODUCT DATA SHEET

Sikadur[®]-31 SBA Slow Set

HIGH MODULUS AND HIGH STRENGTH, SOLVENT-FREE AND MOISTURE TOLERANT, STRUCTURAL EPOXY RESIN PASTE ADHESIVE

PRODUCT DESCRIPTION

Sikadur[®]-31 SBA Slow Set is a unique, two-component epoxy resin based, structural adhesive. It is moisture tolerant during application and curing and provides high-modulus and high strength properties once cured. The material is specifically formulated as an adhesive paste, available in temperature grades to accommodate differing site conditions and construction requirements. The Sikadur[®]-31 SBA group of adhesives has a proven track record and is widely used in bonding hardened concrete to hardened concrete in the erection of segmental bridges and precast elements, amongst other applications.

WHERE TO USE

Sikadur[®]-31 SBA Slow Set may only be used by experienced professionals.

- Structural bonding of precast, post-tensioned concrete bridge segments.
- Sealing of joints between concrete sections in segment-by-segment erection.
- Sealing of joints between concrete sections in span-by-span erection.
- Structural bonding of building components including steel and timber sections.

PRODUCT INFORMATION

Packaging	11.4 L (3 US gal.) units consisting of: Component A (Resin) 7.6 L (2 US gal.) Component B (Hardener) 3.8 L (1 US gal.)
Colour	Concrete grey

CHARACTERISTICS / ADVANTAGES

- Easy to apply, non-sag paste for vertical applications.
- Convenient and easy to mix ratio. A:B=2:1 by volume.
- Excellent adhesion to concrete, steel, timber and most construction materials.
- Moisture tolerant before, during and after cure.
- Supplied in 2 temperature governed grades to meet project requirements.
Grade 13-24 (+13 °C to +24 °C [55 °F - 75 °F])
Grade 21-32 (+21 °C to +32 °C [70 °F - 90 °F])
- Sikadur[®]-31 SBA Slow Set Cold Weather is available for cold weather conditions [-6 °C to +7 °C (21 to 45 °F)].
- High-modulus, high-strength, structural adhesion.
- Conformance to ASTM C881, Type VI requirements and ASBI guidelines.
- Product qualified by The Road Authority (TRA).

Shelf Life	2 years in original, unopened containers.		
Storage Conditions	Store in cool dry location at temperatures between +4 °C and +35 °C (40 °F and 95 °F). Condition material at temperatures between +21 °C and +24 °C (70 °F and 75 °F) before using.		
Consistency	Non-sag paste		
Compressive Strength		Grade 13-24 at +13 °C (55 °F)	Grade 21-32 at +21 °C (70 °F) (ASTM D695)
	36 h	27.5 MPa (4000 psi)	58.6 MPa (8500 psi)
	72 h	48.2 MPa (7000 psi)	65.5 MPa (9500 psi)
Heat Deflection Temperature	Grade 13-24 +51 °C (124 °F)	Grade 21-32 +51 °C (124 °F)	(ASTM D648) 7 days at +23 °C (73 °F) (fibre stress loading = 1.8 MPa [264 psi])

APPLICATION INFORMATION

Mixing Ratio	A : B = 2 : 1 by volume		
Consumption	Approximately 1 m ² /L (12 ft ² / US gal.) at 1 mm thickness		
Pot Life	Grade 13-24 at +24 °C (75 °F)	Grade 21-32 at +32 °C (90 °F)	3.78 L (1 US gal.)
	2 h	2 h	
Open Time	Grade 13-24 at +24 °C (75 °F)	Grade 21-32 at +32 °C (90 °F)	
	6 h	6 h	

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods. Properties tested at +23 °C (73 °F) and 50 % R.H. unless stated otherwise.

LIMITATIONS

- Not for use as an adhesive for fresh, cement concrete or mortar.
- Use the correct grade of material for prevailing temperatures.
- For cold weather conditions [-6 °C to +7 °C (21 to 45 °F)], refer to Sikadur®-31 SBA Slow Set Cold Weather.
- Use of product outside of designated temperature ranges is not recommended.
- Use the correct setting grade (regular or slow) depending on the method of erection.
- Do not thin Sikadur®-31 SBA Slow Set adhesives; solvents will prevent proper cure.
- Do not hand mix Sikadur®-31 SBA Slow Set adhesives;

mechanically mix only.

- Ensure one Component B is added to one Component A.
- Lower temperatures will prolong pot life, open time, strength development and curing time. Higher temperatures will reduce all times.
- Not intended as an aesthetic adhesive; colour may alter due to variations in exposure to U.V. lighting.

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

All surfaces must be clean and sound. They may be dry or damp, but must be free of standing water and frost. Best results are achieved when the substrate is dry. Remove all dust, dirt, laitance, grease, curing compounds, impregnations, waxes, foreign products, disintegrated, loose and friable materials and any other contaminants.

MIXING

Pre-stir each component to ensure even consistencies and colours. Empty all of Component B (hardener) into the pail containing Component A and thoroughly mix at low speed (400 - 600 rpm) the combined components for a minimum of three (3) minutes, using a drill fitted with a *Jiffy*- style mixing paddle, until a uniform grey colour is achieved. During the mixing operation, scrape down the sides and bottom of the mixing pail with a flat or straight edge tool at least once, to ensure no unmixed epoxy remains and a consistent grey colour is produced before applying.

Mix only that quantity which can be used within its pot life.

APPLICATION METHOD / TOOLS

Apply the mixed Sikadur®-31 SBA Slow Set to the concrete surface using a trowel, spatula or glove protected hand.

Notes:

- Work well into the surface, especially if the substrate is damp. Spread the paste to a thickness of 3 mm (1/8 in) to one face or 1.5 mm (1/16 in) on both faces of the sections to be joined, depending upon project requirements.
- Segments must be post-tensioned within the open time of the epoxy.

CLEAN UP

Clean all tools and equipment immediately with Sika® Epoxy Cleaner. Once hardened, the material can only be removed mechanically.

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LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

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Product Data Sheet

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