



**PRODUCT DATA SHEET**

Edition 07.2018/v1  
CSC Master Format™ 03 21 00  
REINFORCEMENT BARS

# Sikadur®-32 Hi-Mod

## HIGH-MODULUS, HIGH-STRENGTH, EPOXY-BASED PROTECTIVE COATING AND BONDING ADHESIVE

<b>Description</b>	Sikadur®-32 Hi-Mod, is a multi-purpose, two-component, solvent-free, moisture-insensitive, structural epoxy adhesive and protective coating.
<b>Where to Use</b>	<ul style="list-style-type: none"> <li>▪ Protective coating for reinforcing steel.</li> <li>▪ Bond fresh, plastic concrete to hardened concrete and steel.</li> <li>▪ Grout bolts, dowels, pins etc.</li> <li>▪ Grout horizontal cracks in structural concrete and wood by gravity feed.</li> <li>▪ Structural adhesive for concrete, masonry, metal, wood, etc.</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>▪ High-build, chemically resistant and protective coating.</li> <li>▪ Super-strength bonding/grouting adhesive.</li> <li>▪ Insensitive to moisture before, during and after cure.</li> <li>▪ Excellent adhesion to most structural materials.</li> <li>▪ Easy to mix: 1:1 ratio.</li> <li>▪ Easy to use for bonding/grouting applications.</li> <li>▪ Free of service-inhibiting polysulfides.</li> <li>▪ Fast initial set; rapid gain to ultimate strengths.</li> <li>▪ USDA-approved for use in food plants.</li> <li>▪ Meets ASTM C881, Type I, II and V, Grade 2, Class B and C, epoxy resin adhesive.</li> <li>▪ Ministère des Transports du Québec acceptance.</li> <li>▪ Product recognized by the British Columbia Ministry of Transportation(BC MoT).</li> </ul>

<b>Technical Data</b>			
<b>Packaging</b>	10 L (2.64 US gal.) unit		
<b>Colour</b>	Concrete Grey		
<b>Yield</b>	1 L = approx. 2 m <sup>2</sup> (1 US gal. = approx. 80 ft <sup>2</sup> )		
<b>Shelf Life</b>	2 years in original, unopened packaging. Store dry at 5 to 32 °C (41 to 89 °F). Condition product at temperatures between 18 and 30 °C (65 to 86 °F) before using.		
<b>Mix Ratio</b>	A:B = 1:1 by volume		
<b>Contact Time</b>	<b>4 °C (39 °F)*</b>	<b>23 °C (73 °F)*</b>	<b>32 °C (89 °F)*</b>
	14 to 16 h	3 h 30 min to 4 h	1 h 30 min to 2 h
<b>Properties at 23 °C (73 °F) and 50 % R.H.</b>			
<b>Viscosity</b>	2800 cps		
<b>Pot Life, 318 g (11.2 oz)</b>	30 - 38 min		
<b>Compressive Strength ASTM D695, MPa (psi)</b>	<b>4 °C (39 °F)*</b>	<b>23 °C (73 °F)*</b>	<b>32 °C (89 °F)*</b>
8 hours	-	-	7 (1015)
16 hours	-	17 (2466)	31 (4498)
1 day	-	32 (4643)	44 (6384)
3 days	5 (725)	56 (8125)	57 (8270)
7 days	50 (7255)	66 (9576)	57 (8270)
14 days	56 (8125)	66 (9576)	57 (8270)
28 days	60 (8706)	66 (9576)	57 (8270)
<i>* Product cured and tested at the temperatures indicated.</i>			
<b>Modulus of Elasticity ASTM D695</b>	3.03 GPa (4.4 x 10 <sup>5</sup> psi)		
<b>Tensile Properties ASTM D638</b>			
14 days	Tensile strength	33 MPa (4788 psi)	
	Elongation at break	1.9 %	
	Modulus of elasticity	2.2 GPa (3.2 x 10 <sup>5</sup> psi)	

<b>Flexural Properties ASTM D790</b>		
14 days	Modulus of rupture	51 MPa (7400 psi)
	Tangent modulus of elasticity in bending	3.24 GPa (4.7 x 10 <sup>5</sup> psi)
<b>Shear Strength ASTM D732</b>		
14 days		41 MPa (5949 psi)
<b>Water Absorption ASTM D570</b>		
7 days	2 h boil	0.7 %
<b>Deflection Temperature ASTM D648</b>		
14 days	Fibre stress loading = 1.8 MPa (261 psi)	49 °C (120 °F)
<b>Bond Strength ASTM C882</b>		
14 days	Plastic concrete to hardened concrete	13 MPa (1886 lb/psi)
	Plastic concrete to steel	13 MPa (1886 lb/psi)
<i>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.</i>		

## HOW TO USE

### Surface Preparation

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

**Concrete:** Sandblast or use other approved mechanical methods.

**Steel:** Sandblast to white-metal finish (SP-10).

### Mixing

Pre-stir each component then proportion equal parts by volume of component A and component B into a clean pail. Mix thoroughly for three (3) minutes with paddle on low-speed drill (300 - 450 rpm) until blend is a uniform colour. Mix only that quantity that can be applied within its pot life.

### Application

**To protect steel reinforcing:** Apply two (2) coats of Sikadur®-32 Hi-Mod by brush or spray. Allow first coat to become tack-free. Apply second coat prior to application of repair mortar/concrete.

**To bond fresh concrete to hardened concrete:** Apply by brush, roller, broom or spray. Place fresh concrete while Sikadur®-32 Hi-Mod is still tacky. If coating becomes glossy and loses tackiness, remove any surface contaminants then recoat with additional Sikadur®-32 Hi-Mod and proceed.

**To anchor bolts, dowels and pins:** Use neat. For efficient transfer of stress, the holes should be not greater than 6 mm (1/4 in) in diameter than the bar, pin or rod to be embedded. Depth of embedment is typically 10 to 15 times the bar diameter.

**To gravity feed cracks:** Pour neat material into "V"-notched crack. Continue placement until completely filled. Seal underside of slab prior to filling if cracks reflect through.

### Clean Up

Collect with absorbent material. Dispose of in accordance with local disposal regulations. Uncured material can be removed with Sika® Epoxy Cleaner. Cured product can only be removed mechanically.

### Limitations

- Do not use as a bonding agent with set accelerated mortars, e.g. SikaQuick®-1000, SikaQuick®-2500, and SikaTop®-123 Plus Winter Grade. Contact Sika Canada for more information.
- Minimum application temperature: 4 °C (39 °F).
- Product is a vapour barrier after cure.
- Do not thin with solvents.

### Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN  
FOR INDUSTRIAL USE ONLY

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, within their shelflife. 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](http://www.sika.ca)

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