

# Sikadur® 32 Hi-Mod

## High-Modulus, High-Strength, Epoxy Bonding Adhesive

<b>Description</b>	Sikadur® 32 Hi-Mod, is a multi-purpose, two-component, solvent-free, moisture-insensitive, structural epoxy adhesive.
<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, and 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>■ 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 C 881, Type I, II and V, Grade 2, Class B and C, epoxy resin adhesive.</li> <li>■ Ministry of Transport Québec acceptance.</li> </ul>

### Technical Data

<b>Packaging</b>	10 L and 40 L (2.6 and 10.5 US gal.) units		
<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° - 32°C (41° - 89°F). Condition product to 18° - 30°C (65° - 86°F) before using.		
<b>Mixing Ratio</b>	A:B = 1:1 by volume		
<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>Contact Time</b>	<b>4°C (39°F)*</b>	<b>23°C (73°F)*</b>	<b>32°C (89°F)*</b>
	14-16 hrs	3.5-4 hrs	1.5-2 hrs
<b>Compressive Strength ASTM D 695, MPa (psi)</b>	<b>4°C (39°F)*</b>	<b>23°C (73°F)*</b>	<b>32°C (89°F)*</b>
8 hrs	-	-	7 (1015)
16 hrs	-	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)

\* Product cured and tested at the temperatures indicated.

### Modulus of Elasticity ASTM D 695

28 days 3.03 GPa (4.4 x 10<sup>5</sup> psi)

### Tensile Properties ASTM D 638

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)

### Flexural Properties ASTM D 790

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)

### Shear Strength ASTM D 732

14 days 41 MPa (5949 psi)



<b>Water Absorption ASTM D 570</b> 7 days	2 h boil	0.7%
<b>Deflection Temperature ASTM D 648</b> 14 days	Fiber stress loading = 1.8 MPa (261 psi)	49°C (120°F)
<b>Bond Strength ASTM C 882</b> 14 days	Plastic concrete to hardened concrete	13 MPa (1886 psi)
	Plastic concrete to steel	13 MPa (1886 psi)

<b>How to Use</b>	
<b>Surface Preparation</b>	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. <b>Concrete</b> - Sandblast or use other approved mechanical methods. <b>Steel</b> - Sandblast to white-metal finish (SP-10).
<b>Mixing</b>	Premix each component then proportion equal parts by volume of component A and component B into a clean pail. Mix thoroughly for 3 min 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.
<b>Application</b>	<b>To protect steel reinforcing</b> - Apply two 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. <b>To bond fresh concrete to hardened concrete</b> - 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. <b>To anchor bolts, dowels and pins</b> - Use neat. For efficient transfer of stress, the holes should be not greater in diameter than 6 mm larger than the diameter of the bar, pin or rod to be embedded. Depth of embedment is typically 10 to 15 times the bar diameter. <b>To gravity feed cracks</b> - Pour neat material into "V"-notched crack. Continue placement until completely filled. Seal underside of slab prior to filling if cracks reflect through.
<b>Clean Up</b>	Collect with absorbent material. Dispose of in accordance with local disposal regulations. Uncured material can be removed with Sika® Equipment Cleaner/Epoxy Thinner. Cured product can only be removed mechanically.
<b>Limitations</b>	<ul style="list-style-type: none"> <li>■ Minimum application temperature: 4°C (39°F).</li> <li>■ Product is a vapour barrier after cure.</li> <li>■ Do not thin with solvents.</li> </ul>
<b>Caution</b>	<b>Component A</b> - Irritant - Prolonged contact with skin may cause irritation. Avoid eye contact. <b>Component B</b> - Irritant - Contact with skin may cause severe burns. Avoid eye contact. Product is a strong sensitizer. The use of safety goggles and chemical-resistant gloves is recommended. Avoid breathing vapours. Use adequate ventilation. The use of a NIOSH/MSHA organic vapour respirator is recommended. Consult product label for additional information.
<b>First Aid</b>	In case of skin contact, wash with soap and water. For eye contact flush immediately with plenty of water for at least 15 min. Contact a physician. For respiratory problems, transport victim to fresh air. Remove contaminated clothing and wash before re-use.

For more information, consult Sika Material Safety Data Sheet.

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 shelf life. 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under [www.sika.ca](http://www.sika.ca).

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