



PRODUCT DATA SHEET

Edition 12.2018/v1

# SikaRepair® SHB

## ONE-COMPONENT, EARLY STRENGTH-GAINING, CEMENTITIOUS PATCHING MORTAR

<b>Description</b>	SikaRepair® SHB is a one-component, early strength-gaining, cementitious, patching mortar for horizontal, vertical and overhead concrete repair.
<b>Where to Use</b>	<ul style="list-style-type: none"> <li>Use on grade, above, and below grade on concrete and mortar.</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>Easy to use; just add water.</li> <li>High early strength.</li> <li>Does not form a vapour barrier.</li> <li>SikaRepair® SHB performance may be enhanced with the addition of SikaLatex® R.</li> </ul>

### Technical Data

<b>Packaging</b>	5 kg (11 lb) and 20 kg (44 lb) bags, 10 kg (22 lb) pail		
<b>Colour</b>	Concrete Grey		
<b>Yield</b>	<b>6 mm (¼ in)</b>	<b>12.5 (½ in)</b>	<b>25 mm (1 in)</b>
5 kg (11 lb)	0.46 m <sup>2</sup> (5 ft <sup>2</sup> )	0.23 m <sup>2</sup> (2.5 ft <sup>2</sup> )	0.09 m <sup>2</sup> (1 ft <sup>2</sup> )
10 kg (22 lb)	0.9 m <sup>2</sup> (10 ft <sup>2</sup> )	0.46 m <sup>2</sup> (5 ft <sup>2</sup> )	0.23 m <sup>2</sup> (2.5 ft <sup>2</sup> )
20 kg (44 lb)	1.8 m <sup>2</sup> (20 ft <sup>2</sup> )	0.9 m <sup>2</sup> (10 ft <sup>2</sup> )	0.46 m <sup>2</sup> (5 ft <sup>2</sup> )
<b>Shelf Life</b>	1 year in original, unopened packaging. Store dry at 5 - 32 °C (41 - 90 °F) . Condition product to 15 - 24 °C (59 - 75 °F) before using.		
<b>Mix Ratio</b>	2.4 to 2.9 L (0.63 to 0.76 US gal.) of water per 20 kg (44 lb) bag		
<b>Properties at 23°C (73°F) and 50% R.H.</b>			
	2.4 L water content	2.9 L water content	
<b>Working Time</b>	30 min	120 min	
<b>Initial Set</b>	30 min	150 min	
<b>Final Set</b>	240 min	300 min	
<b>Density ASTM C185</b>	2200 kg/m <sup>3</sup> (137 lb/ft <sup>3</sup> )	2230 kg/m <sup>3</sup> (139 lb/ft <sup>3</sup> )	
<b>Compressive Strength ASTM C109</b>			
24 h	20 MPa (2900 psi)	15 MPa (2175 psi)	
14 days	35 MPa (5076 psi)	28 MPa (4061 psi)	
28 days	45 MPa (6526 psi)	40 MPa (5801 psi)	
<b>Modulus of Elasticity ASTM C469</b>			
7 days	24 GPa (3.4 x 10 <sup>6</sup> psi)	22 GPa (3.1 x 10 <sup>6</sup> psi)	
<b>Shrinkage ASTM C928</b>			
28 days	0.075 %	0.09 %	
<b>Flexural Strength</b>	11 MPa (1595 psi)	9 MPa (1305 psi)	
<b>Bond Strength CAN A23.2-6B</b> (Substrate failure)	1.5 MPa (217 psi)	1.5 MPa (217 psi)	

*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.*

### HOW TO USE

<b>Surface Preparation</b>	Remove all deteriorated concrete, dirt, oil grease, other bond inhibiting materials from surface. Be sure patch area is no less than 3 mm (1/8 in) in depth. Preparation work should be done by chipping, high-pressure waterblasting or other appropriate mechanical means. Obtain substrate fracture with a minimum surface profile of ± 1.5 mm (1/16 in). Dampen surface to be repaired with clean water. Substrate should be saturated surface dry (SSD) with no standing water during application.
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<b>Mixing</b>	<p><b>Water dosage (always use potable water)</b></p> <ul style="list-style-type: none"> <li>Vertical &amp; overhead applications: <b>2.4 L/bag</b></li> <li>Horizontal applications: <b>2.9 L/bag</b></li> </ul> <p><b>Mixing:</b> Pour the measured water into a suitable mixing container. Slowly add SikaRepair® SHB and mix at low speed (300 - 450 rpm) for three (3) minutes maximum using a drill fitted with a mixing paddle until a uniform consistency is achieved. Add water for a more fluid consistency. <b>Do not overwater the mix.</b> Excessive water/cement ratios may cause severe bleeding and retardation and will reduce the strength and performance of the mortar</p> <p><b>Note:</b> For enhanced performance, SikaRepair® SHB may be used with Sika® Latex R instead of water. Use up to 1 jug of 3.5 L (0,92 US gal.) of Sika® Latex R per 20 kg (44 lb) bag of SikaRepair® SHB depending on the consistency desired. Hold back on Sika® Latex R where a stiffer mortar is required. Do not over-proportion Sika® Latex R.</p>
<b>Application</b>	At time of application, surfaces should be damp (saturated surface dry) with no glistening water. Mortar must be scrubbed into substrate, filling all pores and voids. Force material against edge of repair, working toward center. Allow mortar to set to desired stiffness cut then finish with wood or sponge float or texture as required. If repair requires more than 38 mm (1.5 in), use several lifts. Each lift must be applied as soon as the previous lift will support it and all surfaces but the last must be left rough.
<b>Curing</b>	As per ACI 308 recommendations for cement concrete, curing is required. To achieve performance consistent with Technical Data, curing must be provided by recognized curing methods, such as wet burlap covered with white polyethylene film, misting with water, or approved water-based curing compound. Moist curing must start immediately after finishing. Protect freshly applied mortar from direct sunlight, wind, rain and frost.
<b>Clean Up</b>	Remove SikaRepair® SHB from tools and mixing equipment with water. Cured product can only be removed mechanically
<b>Limitations</b>	<ul style="list-style-type: none"> <li>Minimum application thickness: 3 mm (1/8 in).</li> <li>Maximum lift thickness: 38 mm (1.5 in)</li> <li>Maximum total applied thicknesses should not exceed 76 mm (3 in) without additional reinforcing support.</li> <li>Minimum ambient and surface temperatures at the time of application: 7 °C (45 °F) and above</li> <li>Mix to the desired consistency but do not overwater.</li> </ul>
<b>Health and Safety Information</b>	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

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)

**SIKA CANADA INC.**

**Head Office**

601, avenue Delmar  
Pointe-Claire, Quebec  
H9R 4A9

**Other locations**

Toronto  
Edmonton  
Vancouver

**1-800-933-SIKA**  
**[www.sika.ca](http://www.sika.ca)**

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