

# Sikadur<sup>®</sup>-33

## High Modulus, High-Strength, Structural, Rapid Curing Epoxy, Smooth-Paste Adhesive

Construction

<b>Description</b>	Sikadur-33 is a 2-component, 100% solids, moisture-tolerant, high-modulus, high-strength, structural, smooth-paste epoxy adhesive.
<b>Uses</b>	<p><i>As a structural adhesive for:</i></p> <ul style="list-style-type: none"><li>■ Concrete elements</li><li>■ Hard natural stone</li><li>■ Ceramics, fibre cement</li><li>■ Mortar, Bricks, Blocks, Masonry, render etc.</li><li>■ Steel, Iron, Aluminium</li><li>■ Wood</li><li>■ Polyester, Epoxy</li></ul> <p><i>For concrete repairs</i> Interior, vertical and overhead repair of:</p> <ul style="list-style-type: none"><li>■ Corners and edges</li><li>■ Hole and void filling</li><li>■ Joint arrises</li></ul> <p><i>Joint filling and crack sealing:</i></p> <ul style="list-style-type: none"><li>■ Crack filling and sealing (non moving)</li></ul> <p><i>Metalwork, carpentry:</i></p> <ul style="list-style-type: none"><li>■ Fixing and fastening of handrails, railings, balustrades and supports</li><li>■ Fixing of window and door frames</li></ul> <p><i>For use in the following:</i></p> <ul style="list-style-type: none"><li>■ Concrete</li><li>■ Hard natural stone</li><li>■ Solid rock</li><li>■ Hollow and solid masonry</li><li>■ Steel</li><li>■ Wood</li></ul>
<b>Advantages</b>	<ul style="list-style-type: none"><li>■ Can be used on damp concrete</li><li>■ Excellent adhesion to the substrate</li><li>■ Non-sag, also overhead</li><li>■ High load capacity</li><li>■ Shrinkage-free hardening</li><li>■ Styrene-free</li><li>■ Convenient easy mix ratio A : B = 1 : 1 by volume</li></ul>
<b>Storage and Shelf Life</b>	Minimum shelf life is approximately 2 years. Store under controlled conditions in original containers (minimum 4°C, maximum 35°C temperature range). <b>Condition material to 18°C-24°C before using.</b>
<b>Instructions for Use</b>	



<b>Surface Preparation</b>	<p>Surface must be clean and sound. It may be dry or damp, but free from standing water. Remove dust, laitance, grease, curing compounds, impregnations, waxes and any other contaminants.</p> <p><b>Preparation Work</b></p> <p>Concrete, natural stone, cement mortar and render: Clean, free from oils and grease, no loose or friable particles, no cement laitance. Age of concrete 3 to 6 weeks (dependent on mix design and environment). Preparation: Blastcleaning or grinding.</p> <p>Construction steel 37, V2 A steel: Free from oil, grease, rust or mill scale. Preparation: Blastcleaning or grinding. Avoid dew point conditions. If prepared steel is not to be used immediately, its surface must be coated with Sikagard®-62 to protect it.</p> <p><i>Polyester, epoxy, ceramics:</i> <i>Free from oils and grease. Polyester epoxy: Grind, using coarse abrasive.</i> <i>Glass, ceramics: Grinding, do not apply to siliconised substrates.</i></p>
<b>Mixing</b>	<p>Pre-mix each component. Proportion equal parts by volume of Component 'B' and Component 'A' into a clean pail. Mix thoroughly for 3 minutes with Sika paddle on low speed (400-600 rpm) drill until uniform in colour. Mix only the quantity that can be used within its potlife.</p>
<b>Substrate Quality</b>	<p>Mortar and concrete must be older than 28 days.</p> <p>Adequate substrate strength (concrete, masonry, natural stone) must always be confirmed.</p>
<b>Application</b>	<p>Apply Sikadur-33 to the prepared substrate by trowel or gloved hand. Ensure the material is worked well (scrubbed) into the surface, this is particularly important on damp surfaces. There should be no standing water on concrete surfaces. If using Sikadur-33 as an adhesive, coat both adherents and press into place (on vertical and overhead surfaces temporary support must be provided). The adhesive layer should not be less than 2 mm.</p> <p><b>To seal injection ports and crack for injection grouting</b> – Place the neat mixed material over the cracks to be pressure-injected and around each injection port. Allow sufficient time to set before pressure-injecting.</p> <p>Use Sikadur-52 for the low-viscosity injection adhesive. Consult the Technical Data Sheet on this product for more information. Also contact Technical Services for additional information on pressure-injection grouting.</p> <p><b>To anchor bolts, dowels, pins</b> – Annular space around bolt should not exceed 3 mm, depth of embedment is typically 10-15 times the bolt diameter. Grout with neat Sikadur-33.</p>
<b>Cleaning</b>	<p>Uncured material may be cleaned from application tools, etc. by using Sika Colma Cleaner (flammable solvent). Cured material can only be removed mechanically.</p>
<b>Product Data</b>	
<b>Form</b>	Smooth-paste adhesive
<b>Colour</b>	Concrete grey
<b>Density</b>	1.35 kg/l (part A+B mixed)
<b>Change of Volume</b>	Shrinkage: Hardens without shrinkage.
<b>Thermal Expansion Coefficient</b>	Coefficient W: 9.3 x 10 <sup>-5</sup> per °C (Temp. range +23°C - +60°C) (According EN 1770)
<b>Thermal Stability</b>	Glass transition temperature (TG): HDT = +49°C (7 days / +23°C) (According to EN12614)
<b>Packaging</b>	2 litre kit 20 litre kit

<b>Mix ratio</b>	A : B = 1 : 1 by volume																
<b>Potlife</b>	60 minutes (+23°C)																
<b>Application Conditions / Limitations</b>																	
<b>Substrate Temperature</b>	+10°C min. / +35°C max.																
<b>Ambient Temperature</b>	+10°C min. / +35°C max.																
<b>Substrate Moisture Content</b>	Can be damp but not "wet". No free standing water during application and curing.																
<b>Relative Air Humidity</b>	85% max. (at +25°C)																
<b>Dew Point</b>	Avoid condensation during dew point conditions. Substrate temperature during application must be at least 3°C above dew point.																
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<b>Flexural strength</b>	20 MPa (14 days, +23°C)																
<b>Layer Thickness</b>	0.5mm min./10mm max																
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<b>Compressive strength, (MPa)</b>	~50 N/mm <sup>2</sup> (14 days + 23°C)																
<b>Important Notes</b>	<ul style="list-style-type: none"> <li>• Minimum substrate and ambient temperature 4°C</li> <li>• Do not thin. Addition of solvents will prevent proper cure.</li> <li>• Material is a vapour barrier after cure</li> <li>• Not for sealing and cracks under hydrostatic pressure at the time of application</li> </ul>																

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**Handling Precautions**

- Avoid contact with skin and eyes and breathing vapour
- Wear chemical resistant gloves and safety goggles when mixing and using
- If poisoning occurs contact a doctor or Poison Information Centre
- If swallowed do not induce vomiting
- If skin contact occurs, remove contaminated clothing and wash skin thoroughly
- If in eyes, hold eyes open and flood with water for 15 minutes and consult a doctor
- In all cases contact a doctor if symptoms persist. See Material Safety Data Sheet for further information

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**Important Notification**

The information, and, in particular, the recommendations relating to the application and end-use of Sika's 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 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 written recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject of our terms and conditions of sale. Users should always refer to the most recent issue of the Australian version of the Technical Data Sheet for the product concerned, copies of which will be supplied on request.

PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.

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