

PRODUCT DATA SHEET

Sikadur®-33

HIGH MODULUS, HIGH-STRENGTH, STRUCTURAL, RAPID CURING EPOXY, SMOOTH-PASTE ADHESIVE

DESCRIPTION

Sikadur-33 is a 2-component, 100% solids, moisture-tolerant, high-modulus, high-strength, structural, smooth-paste epoxy adhesive.

USES

As a structural adhesive for:

- Concrete elements
- Hard natural stone
- Ceramics, fibre cement
- Mortar, Bricks, Blocks, Masonry, render etc.
- Steel, Iron, Aluminium
- Wood

For concrete repairs

Interior, vertical and overhead repair of:

- Corners and edges
- Hole and void filling
- Joint arrises

Joint filling and crack sealing:

- Crack filling and sealing (non-moving)

Metalwork, carpentry:

- Fixing and fastening of handrails, railings, balustrades and supports
- Fixing of window and door frames

For use in the following:

- Concrete
- Hard natural stone
- Solid rock
- Hollow and solid masonry
- Steel
- Wood

CHARACTERISTICS / ADVANTAGES

- Can be used on damp concrete
- Excellent adhesion to the substrate
- Non-sag, also overhead
- High load capacity
- Shrinkage-free hardening
- Styrene-free

APPROVALS / CERTIFICATES

- Adhesive for structural bonding tested according to EN 1504-4, provided with the CE-mark
- Potable Water approved to AS4020:2018 - Testing of products for use in contact with drinking water.
- Qld Roads (TMR) Section 5. Registered and Conforming Products. Part 5.18 Epoxy paste for Bearing Installation

PRODUCT INFORMATION

Composition	Epoxy resin
Packaging	2.7 kg kit (2 litres) 27 kg kit (20 litres)
Colour	Component A: white Component B: grey Components A + B mixed: Concrete grey
Shelf life	12 months from date of production

Storage conditions Store in original, unopened, sealed and undamaged packaging in dry conditions at temperatures between +10 °C and +30 °C. Protect from direct sunlight.

Density 1.35 kg/l (component A+B mixed) (at +23 °C)

TECHNICAL INFORMATION

Compressive Strength	Curing time	Curing temperature +23 °C	(EN 12190)
	14 days	~50 N/mm ²	

Tensile Strength in Flexure	Curing time	Curing temperature +23 °C	(EN 196)
	14 days	~20 N/mm ²	

Tensile Strength	Curing time	Curing temperature +23 °C	(DIN EN ISO 527-3)
	14 days	~13 N/mm ²	

Tensile Adhesion Strength	Curing time	Substrate	Adhesion strength	(EN 1542 / EN 4624)
	3 days	Dry concrete	>5 N/mm ² *	
	3 days	Dry concrete	>5 N/mm ² *	
	3 days	Blastcleaned steel	>10 N/mm ²	
	3 days	Dry brick	>1.5 N/mm ² **	

*100% concrete failure
**100% brick failure

Shrinkage Hardens without shrinkage

Coefficient of Thermal Expansion 9.3 x 10⁻⁵ per °C (Temp. range +23 °C – +60 °C) (EN 1770)

Glass Transition Temperature +49°C (7 days / +23°C) (EN 12614)

APPLICATION INFORMATION

Mixing Ratio Component A : component B = 1 : 1 by volume

Layer Thickness 0.5 mm min. / 10 mm max.

Sag Flow Non-sag, suitable for overhead applicaiton

Ambient Air Temperature +10 °C min. / +35 °C max.

Relative Air Humidity 85% max. (at 25 °C)

Dew Point Beware of condensation. Substrate temperature during application must be at least 3 °C above dew point.

Substrate Temperature +10 °C min. / +35 °C max.

Substrate Moisture Content Substrate must be dry or mat damp (no standing water)

Pot Life 60 minutes (+23°C)

Open Time	Temperature	Open Time T_{gel}
	+10 °C	210 minutes
	+20 °C	90 minutes
	+35 °C	45 minutes

Minimum cartridge temperature +10 °C

Curing Time

Temperature

+10 °C

+20 °C

+35 °C

Curing Time T_{cur}

3 days*

2 days*

1 day*

*To achieve approx. 80% of the performance
Minimum cartridge temperature +10 °C

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Mortar and concrete must be older than 28 days. Adequate substrate strength (concrete, masonry, natural stone) must always be confirmed.

MIXING

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.

APPLICATION METHOD / TOOLS

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.

To seal injection ports and crack for injection grouting – 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. 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.

To anchor bolts, dowels, pins – 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.

CLEANING OF EQUIPMENT

Uncured material may be cleaned from application tools, etc. by using Sika Colma Cleaner (flammable solvent). Cured material can only be removed mechanically.

IMPORTANT CONSIDERATIONS

- Minimum substrate and ambient temperature 4°C
- Do not thin. Addition of solvents will prevent proper cure.
- Material is a vapour barrier after cure
- Not for sealing and cracks under hydrostatic pressure at the time of application

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

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 written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. 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.

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Product Data Sheet

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