

Product Data Sheet
 Edition 25/08/2005
 Identification no:
 02 04 02 03 001 0 000006
 Sikadur®-33

(Template for local translation)

Sikadur®-33

2-part structural epoxy adhesive

Product Description

Thixotropic two part structural adhesive based on epoxy resin in a cartridge.

Uses

As a structural adhesive for:

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

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



Product Data

Form

Colours	Part A:	white
	Part B:	grey
	Part A+B mixed:	grey

Packaging	250 ml cartridge, 12 per box Pallet: 60 boxes with 12 cartridges
------------------	---

Storage

Storage Conditions / Shelf-Life	12 months from date of production if stored properly in undamaged and unopened, original, sealed packaging in cool and dry conditions, at temperatures between +10°C and +30°C. Protect from direct sunlight. On each Sikadur®-33 cartridge the best before date is printed.
--	---

Technical Data

Density	1.35 kg/l (part A+B mixed)
----------------	----------------------------

Curing Speed

Temperature 	Open Time T _{gel} 	Curing Time T _{cur} 
+10°C	210 minutes	3 days*
+20°C	90 minutes	2 days*
+35°C	45 minutes	1 day*

* to achieve approx. 80% of the performance

Min. cartridge temperature +10°C

Sag Flow	Non-sag, suitable for overhead application
-----------------	--

Layer Thickness	0.5 mm min. / 10 mm max.
------------------------	--------------------------

Mechanical / Physical Properties

Compressive Strength	50 N/mm ² (14 days, +23°C)
-----------------------------	---------------------------------------

Flexural Strength	20 N/mm ² (14 days, +23°C)
--------------------------	---------------------------------------

Tensile Strength	10 - 15 N/mm ² (14 days, +23°C)
-------------------------	--

Bond Strength

Time	Substrate	Bond strength
After 3 days	Dry concrete	> 5 N/mm ² *
After 3 days	Damp concrete	> 5 N/mm ² *
After 3 days	Steel blastcleaned	> 10 N/mm ²
After 3 days	Brick dry	> 1.5 N/mm ² **

*100% concrete failure

**100% brick failure

System Information

Application Details

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

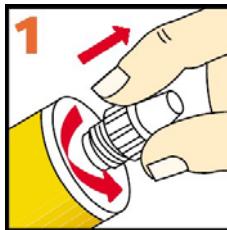
**Application
Conditions /
Limitations**

Substrate Temperature	+10°C min. / +35°C max.
Ambient Temperature	+10°C min. / +35°C max.
Substrate Humidity	Can be damp but not "wet". No free standing water during application and curing.
Relative Air Humidity	85% max. (at +25°C)
Dew Point	Avoid condensation during dew point conditions. Ambient temperature during application must be at least 3°C above dew point.

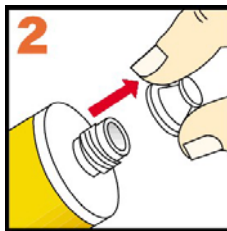
**Application
Instructions**

Mixing Part A : part B = 1 : 1 by volume

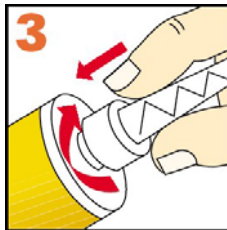
Mixing Tools *Getting the cartridge ready*



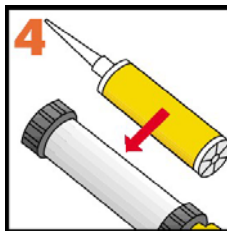
Unscrew and remove the cap



Pull out the plug



Screw on the static mixer



Place the cartridge into the gun and start application

Important note:

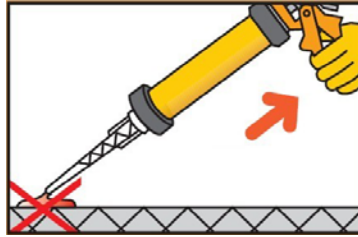
When the work is interrupted the static mixer can remain on the cartridge after the gun pressure has been relieved. If the resin has hardened in the nozzle when work is resumed, a new nozzle must be attached.

Application Method / Tools

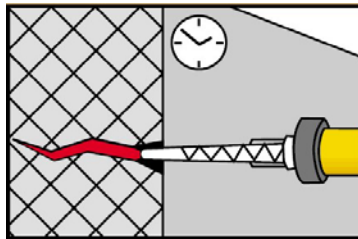
General Advice



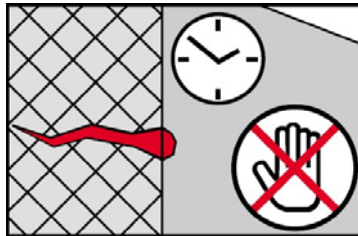
Clean the substrate (free from oil, grease and dust, no loose or friable particles, no cement laitance).



Pump approx. twice until both components start to come out uniformly. Do not use this material. Release the gun pressure and clean the end of the nozzle with a cloth.



Apply the adhesive. Observe the open time.



During curing / hardening the fixing must not be moved. Observe the curing time. Wash tools immediately with Sika® Colma Cleaner. Wash hands and skin thoroughly with warm soap water afterwards.

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.

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.

Polyester, epoxy, ceramics:

Free from oils and grease. Polyester epoxy: Grind, using coarse abrasive.

Glass, ceramics: Grinding, do not apply to siliconised substrates.

Cleaning of Tools

Clean all tools and application equipment with Sika® Colma Cleaner immediately after use. Hardened / curded material can only be mechanically removed.

Potlife

60 minutes (+23°C)

Notes

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 performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

Health and Safety Information

Please insert any additional Standard Health and Safety Information in accordance with local laws and which are not already stated in the safety data sheet. For questions contact your Ecology and Safety-Manager.

Protective Measures

During application in closed rooms, pits and shafts, etc., adequate fresh air ventilation must be provided. Keep away from open flames including welding. To avoid rare allergic reactions, use of protective gloves. Change soiled work clothes and wash hands before breaks and after finishing work.

Local regulations and health and safety advice on packaging labels must be observed.

Ecology

Insert local law information (if product not classified, please remove).

Transportation Class

Insert local law information (if product not classified, please remove).

Important Notes

Residues of material must be removed according to local regulations. Fully cured material can be disposed of as household waste under agreement with the responsible local authorities.

Detailed health and safety information as well as detailed precautionary measures e.g. physical, toxicological and ecological data can be obtained from the material safety data sheet.

Toxicity

Insert local law information (if product not classified, please remove).

Legal Notes

It may be necessary to adapt this disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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.



Sika Services AG
Tüffenwies 16
CH-8048 Zurich
Switzerland

Phone +41 44 436 40 40
Telefax +41 44 436 46 86
www.sika.com

