

Sikadur®-100

2-part multipurpose epoxy adhesive

Product Description

Sikadur®-100 is a solvent-free, thixotropic two part adhesive and repair mortar, based on epoxy resins and special fillers.

Uses

General purpose epoxy adhesive.

As a multipurpose adhesive and filler (for use when the stress between substrate and adhesive is less than 1 N/mm²):

- Concrete
- Hard natural stone
- Ceramics, Fibre Cement
- Mortars, Bricks, Blocks etc.
- Steel, Iron, Aluminium
- Wood
- Polyester, Epoxy
- Glass

As a fast setting concrete repair mortar:

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

For joint filling and crack sealing:

- Joint filling (rigid)
- Crack sealing (non moving)

For surface levelling:

- When high mechanical resistance is required
- Bonding which needs to compensate for level variations in the surfaces to be bonded

Characteristics / Advantages

Sikadur®-100 provides the following advantages:

- Easy to mix and apply
- Suitable for dry and damp concrete surfaces
- Very good adhesion to most construction materials
- Thixotropic: non-sag and suitable for vertical and overhead application
- Solvent free
- Hardens without shrinkage
- Different coloured components (for mixing control)
- No primer needed
- High initial and ultimate strengths
- Good abrasion resistance
- Acts as an adhesive and filler in one product



Product Data

Form

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

Packaging	6 kg (A+B) Prebatched unit, Pallets of 480 kg (80 x 6 kg). 1.2 kg (A+B) Prebatched unit, in boxes of 6 x 1.2 kg.
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Storage

Storage Conditions / Shelf Life	24 months from date of production if stored properly in original unopened, sealed and undamaged packaging, in dry conditions at temperatures between +5°C and +30°C. Protect from direct sunshine.
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Technical Data

Chemical Base

Density	1.86 kg/l (part A) (at +20°C)
	1.90 kg/l (part B) (at +20°C)
	1.90 kg/l (part A+B mixed) (at +20°C)

Sag Flow	On vertical surfaces it is non-sag up to 10 mm thickness. (According to EN 1799)
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Layer Thickness	30 mm max. When using multiple units, one after the other. Do not mix the following unit until the previous one has been used in order to avoid a reduction in handling time.
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Change of Volume	Shrinkage / Creep: Hardens without shrinkage.
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Mechanical / Physical Properties

Compressive Strength	~ 70 N/mm ² (after 10 days at +20°C)	(According to DIN EN 196)
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Flexural Strength	30 N/mm ² (after 10 days at +20°C)	(According to DIN EN 196)
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Tensile Strength	20 N/mm ² (after 10 days at +20°C)	(According to ISO 527)
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Bond Strength	(According to EN ISO 4624, EN 1542 and EN 12188)		
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Curing time	Temperature	Substrate	Bond strength
After 7 days	+23°C	Dry concrete	> 4 N/mm ² *
After 7 days	+23°C	Moist concrete	> 4 N/mm ² *
After 7 days	+23°C	Steel sandblasted	9 N/mm ²

*100% concrete failure.

E-Modulus	~ 10'500 N/mm ²	(According to ISO 527)
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Strength Development	Confirm the strength development by producing cubes on site and testing them for compressive and flexural strength.
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System Information

Application Details

Consumption / Dosage	~ 1.9 kg/m ² per mm of thickness.
Substrate Quality	<p>Mortar and concrete must be older than 28 days (depends on minimal requirement of strengths).</p> <p>Verify the substrate strength (concrete, masonry, natural stone).</p> <p>The substrate surface (all types) must be clean, dry and free from contaminants such as dirt, oil, grease, existing surface treatments and coatings etc.</p> <p>Steel substrates must be de-rusted similar to Sa 2.5.</p> <p>The substrate must be sound and all loose particles must be removed.</p>
Substrate Preparation	<p>Concrete, mortar, stone, bricks: Substrates must be sound, dry, clean and free from laitance, ice, standing water, grease, oils, old surface treatments or coatings and all loose or friable particles must be removed to achieve a laitance and contaminant free, open textured surface.</p> <p>Steel: Must be cleaned and prepared thoroughly to an acceptable quality i.e. by blastcleaning and vacuum. Avoid dew point conditions.</p> <p>Other surfaces (polyester, epoxy, glass, ceramic): On these substrates pre-apply Sikafloor®-156 (primer) and then, "wet on wet" apply Sikadur®-100.</p>

Application Conditions / Limitations

Substrate Temperature	+10°C min. / +30°C max.
Ambient Temperature	+10°C min. / +30°C max.
Material Temperature	Sikadur®-100 must be at a temperature of between +10°C and +30°C for application.
Substrate Humidity	When applied to mat moisture concrete, brush the adhesive well into substrate.
Dew Point	<p>Beware of condensation!</p> <p>Ambient temperature during application must be at least 3°C above dew point.</p>

Application Instructions

Mixing Part A : part B = 4 : 1 by weight or volume

Mixing Time



Pre-batched units:
Mix parts A+B together for at least 3 minutes with a mixing spindle attached to a slow speed electric drill (max. 600 rpm) until the material becomes smooth in consistency and a uniform grey colour. Avoid aeration while mixing. Then, pour the whole mix into a clean container and stir again for approx. 1 more minute at low speed to keep air entrapment at a minimum. Mix only that quantity which can be used within its potlife.

Application Method / Tools

When using a thin layer adhesive, apply the mixed adhesive to the prepared surface with a spatula, trowel, notched trowel, (or with hands protected by gloves).

When applying as a repair mortar use some formwork.

When using for bonding metal profiles onto vertical surfaces, support and press uniformly using props for at least 12 hours, depending on the thickness applied (not more than 5 mm) and the room temperature.

Once hardened check the adhesion by tapping with a hammer.

Cleaning of Tools

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

Potlife

Potlife (200 g) (According to EN ISO 9514)

+10°C	+20°C	+30°C
~ 50 minutes	~ 470 minutes	~ 20 minutes

The potlife begins when the resin and hardener are mixed. It is shorter at high temperatures and longer at low temperatures. The greater the quantity mixed, the shorter the potlife. To obtain longer workability at high temperatures, the mixed adhesive may be divided into portions. Another method is to chill parts A+B before mixing them (not below +5°C).

Value Base

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

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet 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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