

**Product Data Sheet**  
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Sikadur®-52

# Sikadur®-52

## Low viscosity injection resin

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**Product Description** Sikadur®-52 is two part, solvent-free, low viscosity injection-liquid, based on high strength epoxy resin.

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**Uses** As an injection resin with good adhesion to dry concrete, mortar, stone, steel and wood. Sikadur®-52 is used to fill and seal voids and cracks in structures such as bridges and other civil engineering buildings, industrial and residential buildings, e.g. columns, beams, foundations, walls, floors and water retaining structures.

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**Characteristics / Advantages**

- Solvent-free
- Suitable for both, dry and damp conditions
- Usable at low temperatures
- Shrinkage free hardening
- High mechanical and adhesive strengths
- Hard but not brittle
- Low viscosity
- Injectable with single component pumps

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### Product Data

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**Form**

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**Colours** Part A: colourless  
Part B: brownish yellow  
Part A+B mixed: yellowish-brownish

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**Packaging** 0.9 kg (A+B) Pre-batched unit.  
Part A: 0.8 kg plastic container  
Part B: 0.1 kg plastic container

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**Storage**

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**Storage Conditions/ Shelf-Life** 12 months from date of production if stored properly in unopened, undamaged and sealed original packaging, in dry conditions at temperatures between +5°C and +40°C.

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**Technical Data**

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**Chemical Base** Epoxy resin.

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**Mixed Density** 1.14 kg/l (at +27°C)

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**Viscosity** ~ 250 mPa · s at +30°C

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Construction

## Mechanical / Physical Properties

### Compressive Strength

(According to FIP 5.12 and IS 9162-1979)

Curing time	+30°C
1 day	~40 N/mm <sup>2</sup>
7 days	~55 N/mm <sup>2</sup>
14 days	~55 N/mm <sup>2</sup>

### Tensile Strength

~34 N/mm<sup>2</sup> (after 14 days at +30°C)

(According to ISO 527)

### Bond Strength

To concrete:

(According to ASTM C 882)

> 10 N/mm<sup>2</sup> (failure in concrete) (after 14 days at +30°C)

## System Information

### Application Details

#### Consumption / Yield

1.14 kg of Sikadur<sup>®</sup>-52 is ~ equal to 1 l injection resin.

#### Substrate Preparation

Requirements:

Sound, clean, free from oil and grease and surface treatments etc.

Pre-treatment for good bond:

Concrete, mortar, stone should be thoroughly prepared by high pressure water jetting or mechanical means such as grinding, chiselling etc. Cracks must be cleaned to remove dust with compressed air.

### Application Conditions / Limitations

#### Substrate Temperature

+10°C min. / +40°C max.

#### Substrate Moisture Content

Dry condition

### Application Instructions

#### Mixing

Part A : Part B = 8 : 1 (by weight)

#### Mixing Time

Prebatched packaging:

Add all of part B to part A. Mix with an electric mixer at slow speed (max. 250 rpm) for at least 3 minutes. Avoid entraining air.

Bulk packaging:

Add both parts in the correct proportion into a suitable clean, dry container and mix in the same way as for the prebatched units.

#### Application Method / Tools

Successful application depends on very careful preparation. The surface to be treated must be structurally sound, free from standing water, oil, grease, surface contaminants. Dirt, dust and other foreign materials must be removed. Concrete which is fully contaminated with oil / grease, must be removed to the depth of sound & uncontaminated concrete.

Impregnation of cracks on horizontal slabs:

Impregnation is applied with a paint brush or roller until complete saturation of the substrate is achieved. Cracks are sealed by pouring mixed Sikadur<sup>®</sup> 52 directly from the mixing vessel between two "dams" made from Sikaflex<sup>®</sup> sealant. Crack penetrating slabs to their soffit should first be sealed on the underside with Sikadur<sup>®</sup>-31 epoxy mortar or a suitable cementitious Sika mortar.

Injection of cracks on horizontal / vertical slabs:

Injection flange / nipples are fixed along the crack line at an approximately 25 cm center-to-center distance with Sikadur<sup>®</sup>-31. Crack mouth should be opened and sealed with Sikadur<sup>®</sup>-31. Crack penetrating slabs to their soffit should also be sealed on the underside with Sikadur<sup>®</sup>-31 epoxy mortar or a suitable cementitious Sika mortar. Mixed Sikadur<sup>®</sup>-52 can be injected under pressure through injection

ports using injection pump, such as Aliva AL-1200, AL-1250 or the Sika® Hand Pump. As soon as injection resin oozes out of the next injection port, the first one is sealed and injection process is continued from next port.

For horizontal crack, injection should start from any of the ends and to be continued and completed till the last port is used. For vertical crack, injection should start from the lowest port and continued upwards.

After completion of the injection process, the injection ports as well as the sealing materials between the ports are removed.

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

<b>Potlife</b>	100 g mass	(According to FIP 5.1)
	Temperature	Time
	+30°C	~15 min

**Notes on Application / Limitations** Maximum width of cracks to be injected: 5 mm.  
Sikadur®-52 is suitable for dry condition.

**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.

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

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