BUILDING TRUST

PRODUCT DATA SHEET

Sikadur®-52 LP

Low viscosity injection resin

DESCRIPTION

Sikadur®-52 LP is a two part, solvent free, low viscosity injection liquids, based on high strength epoxy resins. Suitable for use in hot and tropical climatic conditions.

USES

- Injection resin with good adhesion to concrete, mortar, stone, steel, and wood.
- Used to fill and seal voids and cracks in structures such as bridges and other civil engineering, industrial and residential buildings, e.g. columns, beams, foundations, walls, floors and water retaining structures.
- Effective barrier against water infiltration and corrosion promoting media.
- Structurally bonds concrete sections together.

FEATURES

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

PRODUCT INFORMATION

Composition	Modified solvent-free two-part epoxy resin	
Packaging	Pre-batched	Part A+B : 4 kg unit
	Bulk packaging	On request
Colour	Part A	Transparent
	Part B	Brownish
	Part A+B	Yellowish-brownish
Shelf life	24 months from date of production if stored properly in unopened, undamaged and sealed original packaging	
Storage conditions	Store in dry conditions in original sealed packaging and at temperatures between +5 °C and +30 °C. Protect from direct sunlight and heat.	
Density		+20 °C
	Part A+B mixed (2:1)	~1.06 kg/l

Viscosity

Temperature	Part A+B mixed (2:1)
+10 °C	-
+20 °C	~330 MPa
+30 °C	~150 MPa
+40 °C	~95 MPa

TECHNICAL INFORMATION

Compressive strength	≥70 N/mm² (7 d / 30 °C)	(ASTM D695)
Tensile strength	~27 N/mm² (7 d / 30 °C)	(ISO 527)
Tensile adhesion strength	**Curing time** / **Curing temperature 25 °C** 2 days / ≥7 N/mm² 14 days / ≥10 N/mm²	(ASTM C882)

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.

FURTHER DOCUMENTATION

Method Statement

IMPORTANT CONSIDERATIONS

- In case of cracks more than 5 mm wide please contact Sika Technical Department.
- Sikadur®-52 LP are suitable for dry and damp, but not for wet injection conditions.
- Consult EN 1504-5 for further information for protection and repair of concrete structures.

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.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Requirements:
Substrates must be sound, clean, free from oil and grease, old coatings 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 by using compressed air.

MIXING

Pre-batched 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 suitable clean and dry container, mix in the same way as for the pre-batched units.

APPLICATION METHOD / TOOLS

Cracks in horizontal slabs:
Saturate a few times using a brush or gravity fill them by pouring mixed Sikadur®-52 LP between two “dams” e.g. made from Sikaflex® sealant. Cracks penetrating slabs to their soffit should first be sealed on the underside, e.g. with Sikadur®-31 CF Slow epoxy mortar or a suitable cementitious Sika® mortar.
Cracks in vertical structures:
Mixed Sikadur®-52 LP can be injected under pressure into the cracks using a suitable single component injection pump.
Injection ports (packers) are set along the crack as per chosen method (surface or bore packers) and related method statement. The crack needs to be sealed e.g. with Sikadur®-31 CF Slow to prevent injection resin to escape during the injection process. Vertical cracks should always be injected from the bottom upwards. As soon as injection resin oozes out of the next packer / injection port, it is sealed and the injection process continues to the next one.
After completion of the injection process, the injection ports (packers) as well as the sealing material between the ports are removed.

CLEANING OF EQUIPMENT

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

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.

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

APPLICATION INFORMATION

Mixing ratio	A : B = 2 : 1 parts by weight and by volume
Consumption	1 kg of Sikadur®-52 LP is equal to ~1 L of injection resin
Substrate temperature	+25 °C min. / +40 °C max.
Substrate moisture content	Dry or damp (SSD - Saturated Surface Dry: No standing water)
Pot Life	

Temperature	1 kg mixture
+5 °C	-
+10 °C	-
+23 °C	~70 min
+30 °C	~30 min
+40 °C	~10 min

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 injection resin may be divided into portions. Another method is to chill components A+B before mixing them (not below +5 °C).

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