

# PRODUCT DATA SHEET

## Sikadur®-55 LP IN

Low viscosity, moisture tolerant epoxy injection resin and crack sealer

### DESCRIPTION

Sikadur®-55 LP IN is a two part, low viscosity, moisture insensitive injection liquid, based on high strength epoxy resin specifically formulated for dry or damp crack sealing. Suitable for use in hot and tropical climatic conditions. Confirms to ASTM C881, Type II and IV, Grade-1, Class F.

### USES

- To repair cracks by injection in structural concrete in slabs, columns, beams, walls, foundations, etc.
- For surface treatment of cracks in interior and exterior slabs.
- For roof slabs, parking lots and structures exposed to pedestrian and vehicular traffic.

### CHARACTERISTICS / ADVANTAGES

- Solvent-free
- Suitable for both, dry and damp conditions
- Usable at high temperatures
- Shrinkage free hardening
- High mechanical strengths
- High bond strength even in wet cracks
- Hard but not brittle
- Low viscosity
- Injectable with single component pumps

### PRODUCT INFORMATION

<b>Product declaration</b>	Confirms to ASTM C881, Type II and IV, Grade-1, Class F	
<b>Composition</b>	Epoxy resin	
<b>Packaging</b>	<b>Small packaging:</b>	
	Part A+B pre-batched	1 kg
	Part A	0.8 kg container
	Part B	0.2 kg container
	<b>Bulk packaging:</b>	
	Part A+B pre-batched	62.5 kg
Part A	50 kg container	
Part B	12.5 kg container	
<b>Shelf life</b>	12 months from date of production	
<b>Storage conditions</b>	The product must be stored properly in unopened, undamaged and sealed original packaging, in dry conditions at temperatures between +5 °C and +40 °C.	

Colour	Part A+B mixed	Clear pale yellow
	Part A	Colourless
	Part B	Pale yellow
Density	~1.08 kg/L (Part A+B mixed, +27 °C)	(EN ISO 2811-1)
Viscosity	~250 mPa·s (at +30 °C)	

## TECHNICAL INFORMATION

Compressive strength	~70 N/mm <sup>2</sup> (7 days, +30 °C)	(ASTM D695)	
Tensile strength in flexure	~50 N/mm <sup>2</sup> (7 days, +30 °C)	(EN 196-1)	
Tensile strength	~50 N/mm <sup>2</sup> (7 days, +30 °C)	(ASTM D638)	
Modulus of elasticity in tension	~2000 N/mm <sup>2</sup> (7 days, +30 °C)	(ISO 527-2)	
Elongation at break	~1.9 %	(ASTM D638)	
Tensile adhesion strength	<b>Curing time</b>	<b>Bond strength</b>	(ASTM C882)
	2 d, moist cure	≥ 7 N/mm <sup>2</sup>	
	14 d, moist cure	≥ 10 N/mm <sup>2</sup>	
Shrinkage	Passes	(ASTM C883)	
Heat deflection temperature	≥ 50 °C	(ASTM D648)	
Water absorption	~0.6 % (24 h)	(ASTM D570)	

## APPLICATION INFORMATION

Mixing ratio	Part A : Part B = 4 : 1 (by weight)
Ambient air temperature	+10 °C min. / +40 °C max.
Substrate temperature	+10 °C min. / +40 °C max.
Substrate moisture content	Sikadur®-55 LP IN is suitable for dry and moist condition. No standing water.
Pot Life	> 60 min (100 g mass, +30 °C)

## 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.

## 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 QUALITY

Substrates must be sound, clean, free from oil and grease, old coatings and surface treatments etc.

### SUBSTRATE PREPARATION

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

### MIXING

#### Pre-batched packaging:

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

#### Bulk packaging:

##### IMPORTANT

Part mixing is recommended.

1. 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

### Impregnation of cracks in horizontal planes:

Saturate the crack by applying the product by paint brush or roller in several passes or by pouring between two "barriers" made with Sikaflex® sealant. The crack penetrating through structure must be sealed on the underside with Sikadur®-31 IN epoxy mortar or a suitable Sika® cementitious mortars.

### Injection of cracks on horizontal / vertical planes:

Sikadur®-55 LP IN can be injected under pressure into cracks using a single-component injection pump. The injectors should be placed at a distance of 25 cm and the fissure between sections of injectors should be superficially sealed with Sikadur®-31 to avoid the loss of resin during the injection process. Vertical cracks must be injected from the bottom up. As soon as the resin oozes through the next injector, the first must be sealed and continue the injection process from the next. After completing the injection process, the injectors and sealing material can be removed.

### IMPORTANT

Maximum width of cracks to be injected: 5 mm. Please contact Sika Technical Services for cracks > 5 mm.

### CLEANING OF EQUIPMENT

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

## 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.

## 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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