BUILDING TRUST

PRODUCT DATA SHEET

Sikadur®-55 SLV IN

Super low-viscosity, high-strength moisture-tolerant epoxy resin, crack healer, penetrating sealer and binder adhesive

DESCRIPTION

Sikadur®-55 SLV IN is a 2-component, 100 % solids, moisture-tolerant, super low-viscosity, multipurpose, epoxy crack healer / penetrating sealer. It is a high-strength epoxy adhesive formulated specifically for sealing both dry and damp, existing, non-dynamic cracks and as epoxy binder for repair in hydraulic structures.

USES

Sikadur®-55 SLV IN may only be used by experienced professionals.

- Pressure-injection of cracks in structural concrete, masonry, wood, etc.
- Gravity-feed of cracks in horizontal concrete and masonry
- Epoxy resin binder for epoxy mortar patching and overlay of interior, horizontal surfaces
- Seal interior slabs and exterior above-grade slabs from water, chlorides and mild chemical attack; also improves wearability

CHARACTERISTICS / ADVANTAGES

- Super low viscosity
- Solvent-free
- Suitable for both, dry and damp conditions
- Usable at low temperatures
- Shrinkage free hardening
- Unique, high mechanical and structural strengths
- Hard but not brittle
- Deep penetrating and tenacious bonding of cracks in structural concrete
- Injectable with single component pumps
- Can be used as epoxy binder in preparation of mortar for repair of concrete

PRODUCT INFORMATION

Product declaration	Conforms to ASTM C881, Type I & IV, Grade 1, Class C, except for gel time	
Chemical base	Epoxy resin	
Packaging	Part A+B pre-batched	0.9 kg × 4 sets
	Part A	0.7 kg container
	Part B	0.2 kg container
Shelf life	12 months from date of production	
Storage conditions	The product must be stored properly in unopened, undamaged and sealed original packaging, in dry conditions at temperatures between +4 °C and +40 °C.	

Colour	Part A+B mixed	Clear pale yellow liquid
	Part A	Colourless liquid
	Part B	Amber coloured liquid

Density	1.15 ± 0.05 kg/L (Part A+B mixed, +25 °C)	(EN ISO 2811-1)

Viscosity (ASTM D1084)

Temperature	Viscosity
+15 °C	~700 Cps
+25 °C	~350 Cps

TECHNICAL INFORMATION

Compressive strength (ASTM D695)

Curing time	Curing temperature	Neat Resin	Mortar (Neat Resin : Powder = 1 : 5)
1 d	+15 °C	≥ 10 N/mm²	≥ 40 N/mm²
3 d	+15 °C	≥ 65 N/mm²	≥ 65 N/mm²
7 d	+15 °C	≥ 70 N/mm²	≥ 70 N/mm²
14 d	+15 °C	≥ 80 N/mm²	≥ 75 N/mm²
28 d	+15 °C	≥ 85 N/mm²	≥ 80 N/mm²

(ASTM D695)

Curing time	Curing temperature	Neat Resin	Mortar (Neat Resin : Powder = 1 : 5)
1 d	+25 °C	≥ 70 N/mm²	≥ 65 N/mm²
3 d	+25 °C	≥ 75 N/mm²	≥ 70 N/mm²
7 d	+25 °C	≥ 80 N/mm²	≥ 75 N/mm²
14 d	+25 °C	≥ 85 N/mm²	≥ 80 N/mm²
28 d	+25 °C	≥ 90 N/mm²	≥ 85 N/mm²

Tensile strength (ASTM D638)

Curing time	Curing temperature	Neat Resin	Mortar (Neat Resin : Powder = 1 : 5)
7 d	+15 °C	≥ 50 N/mm²	≥ 12 N/mm²
7 d	+25 °C	≥ 50 N/mm²	≥ 15 N/mm²

Elongation at break (ASTM D638)

Curing time	Curing temperature	Neat Resin	Mortar (Neat Resin : Powder = 1 : 5)
7 d	+15 °C	~2 %	~0.3 %
7 d	+25 °C	~2 %	~0.3 %

Tensile adhesion strength (ASTM C882)

Curing time, Curing type	Curing temperature	Neat Resin	Mortar (Neat Resin : Powder = 1 : 5)
2 days, moist cure	+15 °C	≥ 7 N/mm²	≥ 7 N/mm²
14 days, moist cure	+15 °C	≥ 10 N/mm²	≥ 10 N/mm²
2 days, dry cure	+25 °C	≥ 7 N/mm²	≥ 7 N/mm²
14 days, dry cure	+25 °C	≥ 10 N/mm²	≥ 10 N/mm²

Heat deflection temperature	Curing time	Curing temperature	Neat Resin	Mortar (Neat Resin : Powder = 1 : 5)	(ASTM D648)
	7 d	+15 °C	≥ 50 °C	≥ 50 °C	
	7 d	+25 °C	≥ 50 °C	≥ 50 °C	

Water absorption	Curing time	Neat Resin	Mortar (Neat Resin : Powder = 1 : 5)	(ASTM D570)
	7 d	~0.25 %	~0.56 %	

APPLICATION INFORMATION

Mixing ratio	Neat Resin	Part A : Part B = 7 : 2 (by weight)
	Mortar	Part A : Part B : Part C = 7 : 2 : 45 (by weight)

Ambient air temperature	+15 °C min. / +45 °C max.

Substrate temperature	+15 °C min. / +45 °C max.

Pot life	Temperature	Pot life	(ASTM C881)
	+15 °C	~75 minutes (100 g mass)	
	+25 °C	~24 minutes (100 g mass)	

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

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

- The surface to be treated must be structurally sound, free from standing water, oil, grease, surface contaminants.
- Minimum age of concrete must be 21 - 28 days, depending on curing and drying conditions.

SUBSTRATE PREPARATION

- Concrete, mortar, stone should be thoroughly prepared.
- Dirt, dust and other foreign materials must be removed by high pressure water jetting or mechanical means such as grinding, chiselling etc.
- Concrete which is fully contaminated with oil / grease, must be removed to the depth of sound & uncontaminated concrete.
- Cracks must be cleaned to remove dust with compressed air.

MIXING

Neat resin or primer

1. Weigh the resin (comp. A) and hardener (comp. B) part as per mixing ratio (by weight) and mix together for 3 minutes at slow speed (400-500 rpm) with a mixing spindle attached to an electrical drill.
2. Continue mixing until the material becomes uniform in colour. Avoid aeration while mixing. Mix only that quantity which can be used within its pot life.

Mortar system

1. To prepare an epoxy mortar slowly add 5 parts by weight of filler (comp. C) to 1 part of mixed Part A + Part B and mix until uniform in consistency.

APPLICATION

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

IMPORTANT
Sikadur®-55 SLV IN is not designed for injection / impregnation of cracks under hydrostatic pressure at the time of application.
IMPORTANT
Do not seal exterior slabs on grade.

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 SLV 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.

Mortar Application
1. Prime prepared surface with mixed Part A & Part B of Sikadur®-55 SLV IN.
2. Place prepared epoxy mortar before primer becomes tack-free using trowels.
3. Finish with finishing trowel.

IMPORTANT
Maximum epoxy mortar thickness is 25 mm per layer.

CLEANING OF TOOLS

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

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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.

Sika India Pvt. Ltd.
620, Diamond Harbour Road
Commercial Complex II
Kolkata - 700 034
West Bengal, India

Contact:
Phone: +91 33 2447 2448
Fax: +91 33 2397 8688
info.india@in.sika.com
www.sika.in