BUILDING TRUST

PRODUCT DATA SHEET

# Sikadur®-55 SLV

Super low-viscosity, moisture-tolerant epoxy resin, crack healer / penetrating sealer

## DESCRIPTION

Sikadur® 55 SLV is a 2-component, 100% solids, moisture-tolerant, epoxy crack healer / penetrating sealer, having a fast tack-free time to minimize downtime. It is a super low-viscosity, high-strength adhesive formulated specifically for sealing both dry and damp cracks. It conforms to the current ASTM C-881, Types I and II, Grade-1, Class-C* and AASHTO M-235 specifications.

* except for gel time

## USES

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

- Sikadur 55 SLV structurally repairs cracked concrete.
- For interior slabs and exterior above-grade slabs.
- For elevated horizontal decks, parking garages and other structures exposed to foot and pneumatic tire traffic.

## CHARACTERISTICS / ADVANTAGES

- Super low viscosity/low surface tension for excellent penetration into cracks.
- Penetrates cracks by gravity down to 0.05 mm in width.
- Prolongs life of cracked concrete.
- Penetrates/seals surface of slabs from water absorption, chloride-ion intrusion, and chemical attack.
- Structurally improves concrete surface.
- Can be open to traffic in 6 hours at 23°C.
- High bond strength, even in damp cracks.
- U.S. Patent No. for ultra-low viscosity healer/sealer to strengthen cracked concrete.

## APPROVALS / CERTIFICATES

- Meets Vic Roads Spec Section 687- Repair of Concrete Cracks

## PRODUCT INFORMATION

| | |
|---|---|
| **Packaging** | 11.3 Litre kit. |
| **Shelf life** | 2 years in original, unopened containers. |
| **Storage conditions** | Store dry at 4° - 35°C. Condition material to 18° - 24°C before using.. |
| **Colour** | Clear, Amber |
| **Density** | 1.1 kg / litre approx. |
| **Viscosity** | ~105 cps @ 23°C |
| **Compressive strength** | MPa, (ASTM D – 695) |

| | 4°C | 15°C | 23°C | 32°C |
|---|---|---|---|---|
| 1 day | - | 2.2 | 7.6 | 33.1 |
| 3 days | 13.8 | 44.8 | 57.2 | 55.2 |
| 7 days | 53.8 | 71.7 | 75.1 | 57.2 |
| 14 days | 66.2 | 75.8 | 81.4 | 68.9 |
| 28 days | 80.7 | 82.7 | 82.7 | 68.9 |

| | | |
|---|---|---|
| **Modulus of elasticity in compression** | 2,068 MPa at 7 days | |
| **Tensile strength in flexure** | 58.6 MPa at days | (ASTM D – 790) |
| **Modulus of elasticity in flexure** | 2,206 MPa at 7 days | (ASTM D – 790) |
| **Tensile strength** | 48.9 MPa at 7 days | (ASTM D – 638) |
| **Tensile strain at break** | 10% | (ASTM D – 638) |
| **Shear strength** | 40.0 MPa at 7 days | (ASTM D - 732) |
| **Tensile adhesion strength** | **Hardened Concrete to Hardened Concrete** | (ASTM C - 882) |
| | 2 days: 17.2 MPa | |
| | 14 days: 17.2 MPa | |
| | **Hardened Concrete to Steel** | (ASTM C - 882) |
| | 2 days: 10.3 MPa | |
| | 14 days: 11.0 MPa | |
| **Heat deflection temperature** | 43°C | (ASTM D - 648) |
| **Water absorption** | 0.60% | (ASTM D - 570) |
| **Mixing ratio** | Component 'A' : Component 'B' = 2 : 1 by volume | |
| **Consumption** | 3.7 to 4.3 m² / litre for surface sealing. | |
| **Pot Life** | ~20 minutes | |

**Contact time**

| 4°C | 13°C | 23°C | 32°C |
|---|---|---|---|
| > 11 hr | 11 hr | 6 hr | 2.5 hr |

## 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.

## IMPORTANT CONSIDERATIONS

- Do not thin. Addition of solvents will prevent proper cure.
- Material is a vapour barrier after cure.
- Do not apply if rain is imminent. Water exposure or humidity will affect surface appearance and may cause surface whitening.
- Not an aesthetic product. Colour may alter due to variations in lighting and/or UV exposure.
- Sealed concrete surface may appear blotchy due to differential absorption.
- Allow sufficient time for the substrate to dry after rain or other inclement conditions.
- Application temperature of substrate must be minimum 3°C above the dew point.
- Minimum ambient and substrate temperature 4°C. Maximum application temperature 35°C.
- Do not inject cracks greater than 6 mm Consult Technical Service.
- Minimum age of concrete is 21-28 days, depending on curing and drying conditions.
- Not designed to seal or inject cracks under hydrostatic pressure during application.

## 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.

### SUBSTRATE PREPARATION

Substrate must be clean, sound and free of surface moisture. Remove dust, laitance, grease, oils, curing compounds, waxes, impregnations, foreign particles, coatings and disintegrated materials by mechanical means (i.e. shotblasting, sandblasting, etc.). For best results, substrate should be dry. Surfaces prepared by Low Pressure Water Cleaning or High Pressure Water Jetting methods should be allowed to dry for 24 hrs. minimum 23°C.

### MIXING

Mix 1 part Component 'B' to 2 parts Component 'A' by volume into a clean pail. Mix thoroughly for 3 minutes with Sika paddle or jiffy mixer on a lowspeed (400-600 rpm) drill until uniformly blended. Mix only that quantity which can be used within its pot life.

### APPLICATION METHOD / TOOLS

To gravity feed cracks: Sikadur 55 SLV is applied to horizontal surfaces by flat squeegee or broom. Spread material over area and allow to pond over cracks. Let material penetrate into cracks and substrate. Remove excess epoxy with roller leaving no visible surface film. For cracks greater than 3 mm wide, fill crack with oven-dried sand before applying Sikadur 55 SLV. Seal cracks from underside, when accessible, to prevent leakage. A second treatment may be required on very porous substrates. Apply second treatment before broadcasting. After treatment, wait at least 20 minutes at 23°C. Cover with broadcast of an oven-dried 20/40 silica sand or similar sand. Distribute evenly over the surface to excess at a rate of 1.5-2.0 kg/m2. Allow to cure 6 hours minimum at 23°C. Remove any loose sand and open to traffic once epoxy has cured.

## 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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