BUILDING TRUST

PRODUCT DATA SHEET

Sikadur®-52 AU

Low viscosity epoxy resin

DESCRIPTION

Sikadur-52 (au) is a low viscosity, free flowing and fast curing injection resin and primer/coating based on a 2 component solvent free epoxy resin; ideally suited to a wide range of building and civil engineering applications where highly penetrative material is required.

USES

Sikadur®-52 AU may only be used by experienced professionals.

Sikadur-52 (au) may be used to inject and fill cracks between 0.2 - 5 mm wide in a wide variety of constructions applications. Sikadur-52 does not shrink on curing and forms a rigid, high strength product which exhibits excellent adhesion to most construction materials enabling the restoration of structural adequacy to columns, beams, foundations, decks and water retaining structures.
Due to its highly penetrative nature Sikadur-52 is ideally suited for application as a primer beneath Sikadur epoxy mortars or Sikafloor mortars and coatings on dense substrates. Sikadur-52 may also be used to stabilise weak and friable substrates.

CHARACTERISTICS / ADVANTAGES

- Shrink free
- Insensitive to moisture during application, cure or whilst in service
- Applicable over wide temperature range
- Low viscosity
- Excellent adhesion to most building materials even when damp
- Proven in service
- High tensile and flexural strength
- Supplied in factory proportioned units
- High early strength
- Chemical resistant

APPROVALS / CERTIFICATES

ASTM C881-78 Complies with Type 1, Grade 1 Class B & C
VIC Roads Section 687 compliant
(Contact Sika Technical for test results)

PRODUCT INFORMATION

Packaging	450ml Twin Ctg Pack 3kg Kit 30kg Kit - Made to Order
Shelf life	Minimum shelf life is approximately 3 years.
Storage conditions	Store under controlled conditions in original containers (minimum 5°C, maximum 35°C temperature range).
Colour	Part A – Semi-Transparent (pale yellow), Part B – Transparent (pale brown) Mixed product pale straw colouration
Density	1.1 kg / litre approx.

Solid content by volume	100% (solvent free)
Viscosity	300 mPa.s approx. @ 20ºC 110 mPa.s approx @ 35ºC Note: 1 mPa.s = 1 centipoise
Consistency	Low viscosity liquid
Compressive strength	@24 hours 44 MPa approx. (AS 1478.2) @ 7 days 54 MPa approx. (AS 1478.2)
Tensile strength	@ 7 days 26 MPa approx. (BS 6319)
Tensile adhesion strength	Adhesion to concrete (EN 1542) >3.5 MPa approx. @ 20ºC (cohesive failure of concrete) Adhesion to sandblasted steel (EN 1542) 10 MPa approx. both grades
Mixing ratio	A : B = 2 : 1 by weight and volume for Normal
Consumption	1.1 kg/m2 approx. per mm thickness (dependent on surface profile, texture, temperature, porosity and wastage)
Ambient air temperature	5ºC- 30ºC (substrate and ambient temperatures)
Pot Life	Temperature 5ºC 70 mins approx. 20ºC 27 mins approx. 35ºC 16 mins approx.

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

APPLICATION INSTRUCTIONS

When applied as a primer/coating Sikadur-52 (au) should be worked well into the substrate. This is particularly important on damp surfaces. Ensure the attainment of an overall gloss sheen but do not allow the material to puddle. If Sikadur-52 (au) is used as a primer for Sikadur epoxy mortars and Sikafloor mortars and coatings it should be allowed to cure (but no more than 24 hours old) prior to applying the ensuing Sikadur/Sikafloor materials. (Please refer to the relevant Sikadur/Sikafloor Technical Data sheets for further details).
Application (continued)
When used to fill cracks Sikadur-52 (au) may be gravity fed or pressure injected for horizontal surfaces. Only pressure injection is suitable for vertical or overhead cracks.
To fill horizontal cracks under gravity construct a reservoir above the crack, fill with Sikadur-52 (au) and allow to penetrate. Residual material may be ground off when fully cured. Vertical and overhead cracks should have injection nipples fixed centrally over the crack (between 30 - 50 cm centres) using Sikadur-31 or Sika Anchorfix-1. Seal the surface of the crack with Sikadur-31 or Sika Anchorfix-1. Allow to cure.

Commence injection under pressure from one end of the crack (the lowest nipple on vertical cracks) until the Sikadur-52 (au) exudes from the next nipple, seal off the first and proceed to inject from the second nipple etc. Once the crack is filled and Sikadur-52 (au) fully cured remove the nipples and use a gas torch and paint scraper or grind the surface back to line and level. For further details on
crack injection please refer to our Technical Department.

NOTES ON INSTALLATION

- If the Part A shows signs of crystallisation, before application place the
- Sikadur-52 (au) cartridge or container in warm water (heated to 60°C) for at least one hour.
- Do not apply to surfaces with standing water or to water saturated cracks.
- For optimum penetration and adhesion substrates should be dry.
- Maximum moisture content of the substrate 10%.
- Do not part mix containers to avoid mix ratio errors.
- Do not dilute the product with solvent as this will affect both the cure and in-service performance.
- Constant in-service temperatures >70ºC may affect the performance of the product.
- Maximum application thickness 5mm.
- Not suitable for injection into cracks less than 0.2 mm or greater than 5mm
- wide. Unless injected under pressure in which case cracks down to 0.15mm are possible.
- Maximum permissible substrate temperature 30°C
- Minimum age of new concrete 3 to 6 weeks, depending on thickness.
- Do not apply Sikadur-52 (au)to substrates lower than

5°C
- The temperature at which the Sikadur-52 (au) is stored during the 24 hours before it is mixed will govern its potlife when mixed.
- Compressive strengths etc. of epoxy resins must be qualified by the testing method eg. Test Standard or size of specimen under test and the rate at which the test piece is loaded while under test, as these factors will affect the result. Faster loading rates will generally give higher ultimate loads and vice versa. Also, a specimen at lower temperature will show higher strengths and vice versa.

SUBSTRATE PREPARATION

All surfaces to be coated, should be mechanically roughened, free from all contaminants (eg. dust, oil, grease, etc.) surface water, laitance, old coatings, corrosion products. Suitable methods of preparation include blast cleaning and scabbling. For optimum penetration the substrate should be dry. When Sikadur-52 (au) is used to inject cracks, the cracks must be blown out with oil free, dry compressed air. Cracks in the width range of 0.2 - 5 mm may be successfully injected.

MIXING

Sikadur-52 (au) is supplied in factory proportioned units comprising the correct quantities of Part A (Resin) and Part B (Hardener). Thoroughly stir both components separately using a slow running drill with a windmill type paddle (max. speed 600 rpm). Decant all of Part B into Part A and mix thoroughly (typically 3 mins). (Not applicable to twin cartridge packs).

CLEANING OF EQUIPMENT

Uncured material may be cleaned from application tools, etc. by using Sika
Colma Cleaner (flammable solvent). Cured material can only be removed mechanically.

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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