Product Data Sheet
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Construction

Sikadur® 52

Low viscosity crack injection epoxy

Positioning

Description
A solvent free, two component, low viscosity liquid based on high strength epoxy resins. After mixing it becomes a deeply penetrative liquid with strong adhesive qualities.

Uses
For injecting and filling cracks (0.2 to 5 mm wide) in precast and insitu concrete components to bond the sections together, thereby restoring the structural integrity of the element.

Advantages
- Highly flowable, penetrating and solvent free.
- Shrinkage free hardening.
- Excellent adhesion to most substrates.
- High mechanical and adhesive strength.
- High early strength.
- Chemical resistance typical of epoxy resins.
- Does not become brittle – retains a very slightly flexible nature.

Tests
Approvals / Standards
Tested in accordance with BS6319. Complies with ASTM C881-78, Type 1, Grade 1, Class B + C.

Product Data

Type:
Solvent free epoxy resin liquid.

Colours:
Clear Straw colour when mixed.

Packaging:
Supplied in 0.9 litre (1.0kg), 2.78 litre (3kg), 7.43 litre (8kg) units (Component A + B)

Storage & Shelf Life:
Three (3) years in unopened, original containers when stored in dry conditions between 5°C and 25°C.

Technical Data

Density:	Approx. 1.1 kg/litre
Service temp:	< 70°C
Application temp:	5°C to 30°C
Shrinkage:	Negligible
Compressive strength:	24 hours = 35 MPa approx.
(at 20°C)	7 days = 45 MPa approx.
Flexural strength:	14 MPa approx.
Tensile strength:	25 MPa approx.
Elastic modulus:	3,500 MPa approx.
Bond strength:	Sandblasted Steel = 15 MPa approx.
	Sandblasted Concrete = 3.5 MPa approx.

Pot life (1 Litre mix):	5°C	10°C	20°C	30°C
(approx. time)	75 mins.	60 mins.	20 mins.	10 mins.

Coverage rate:
Approx. 3 to 5 m²/litre/coat on floors, depending on porosity.

Application Conditions

Surface Preparation
- All concrete surfaces must be clean and free from any loosely adhering particles, or contaminants such as dirt, oil, dust, grease, etc.
- All cement laitance should be removed by scabbling, sandblasting, etc.
- When Sikadur 52 is used for injection purposes the cracks must be blown out with oil free, dry compressed air. Crack widths between 0.2 mm and 5 mm may be successfully injected.

Mixing
- Add the entire contents of Component B to Component A. Using a Sika mixing paddle attached to a low speed electric drill (max. 500 rpm) mix together for at least 3 minutes.
- Part batching of Sikadur 52 is not recommended unless strict measurement of the components, in accordance with the mix ratio of the factory proportioned pack, is observed and adhered to.

Construction

Application

Basic guidelines for crack injection are as follows:

- Using Sikadur 31 epoxy adhesive, fasten Sika Injection Flanges over the cleaned and prepared cracks at 300 to 500 mm intervals. The remainder of crack is also sealed off with Sikadur 31.
- Once the Sikadur 31 has cured the flanges should be blown through in a continuous sequence with clean compressed air.
- After the Sikadur 52 has been mixed it can be loaded into a Sika bulk dispensing gun, adapted to take liquid epoxies.
- The Sikadur 52 should be injected (approx. 25 – 30 psi) into the first and lowest flange over the crack until epoxy starts oozing out of the flange immediately above.
- Seal off the lower flange and transfer the gun to the new flange above.
- Continue this sequence until all flanges have been injected and sealed.
- After Sikadur 52 has cured the flanges and Sikadur 31 can be ground from the surface of the crack using an angle grinder or similar.
- Allow 5 to 7 days curing for full structural integrity of the repair component to be achieved.
- Sika (NZ) Ltd can recommend approved applicators for this specialised work.

Cleaning

- Clean all tools and equipment immediately after use with Sika Colma Cleaner.
- It is recommended that protective gloves and clothing be worn during application, however, uncured Sikadur 52 may be removed from skin with Sikaflex Hand Cleaner or warm soapy water.
- Cured Sikadur 52 can only be removed mechanically.

Important Notes

- Crack injection work should be left for 5 to 7 days to fully cure before full structural integrity is achieved.
- Do not dilute Sikadur 52 with solvent.
- In cases where fine cracks occur it may be difficult to attain satisfactory injection of epoxy with hand operated equipment. We suggest a specialist applicator be used for this type of work.
- Sikadur 52 will not cure at temperatures below 5°C.
- The temperature at which Sikadur 52 is stored during the 24 hours before mixing will govern its pot life when mixed.

Notes

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.

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.

Safety Instructions

Protective Measures

- To avoid rare allergic reactions, we recommend the use of protective gloves. Change soiled work clothes and wash hands before breaks and after finishing work.
- Local regulations as well as health and safety advice on packaging labels must be observed.
- For further information refer to the Sika Material Safety Data Sheet which is available on request.
- If in doubt always follow the directions given on the pack or label.

Transportation Class

Sikadur 52, Component B has a dangerous goods classification for transportation: Haz. Class 8, UN No. 1760, Haz. Chem. 2R, Packing Group III.

Important Notes

- Residues of material must be removed according to local regulations. Fully cured material can be disposed of as household waste under agreement with the responsible local authorities.
- Detailed health and safety information as well as detailed precautionary measures e.g. physical, toxicological and ecological data can be obtained from the safety data sheet.

Legal Notes

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