

PRODUCT DATA SHEET

Sikadur[®]-52 MY

LOW VISCOSITY INJECTION RESINS

DESCRIPTION

Sikadur[®]-52 MY is a two part, solvent free, low viscosity injection-liquids, based on high strength epoxy resins.

USES

As an injection resin with good adhesion to concrete, mortar, stone, steel and wood, Sikadur[®]-52 MY is used to fill and seal voids and cracks in structures such as bridges and other civil engineering buildings, industrial and residential buildings, e.g. columns, beams, foundations, walls, floors and water retaining structures. It not only forms an effective barrier against water infiltration and corrosion promoting media, but it also structurally bonds the concrete sections together.

CHARACTERISTICS / ADVANTAGES

- Solvent free
- Suitable for both, dry and damp conditions
- Shrinkage free hardening
- High mechanical and adhesive strengths
- Hard but not brittle
- Low viscosity
- Injectable with single component pumps

PRODUCT INFORMATION

Composition	Modified epoxy resin	
Packaging	<ul style="list-style-type: none"> ▪ 2 kg set ▪ 15 kg set 	
Colour	Part A	Transparent
	Part B	Brownish
	Part A + B	Light brown
Shelf Life	2 years from the date of production	
Storage Conditions	Store properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight.	
Density	At 20 °C	
	Part A	~1.1 kg/l
	Part B	~1.0 kg/l
	Part A + B (2 : 1)	~1.06 kg/l

Viscosity	+20 °C	~203 cps
	+30 °C	~110 cps

TECHNICAL INFORMATION

Compressive Strength	> 80 N/mm ² at 7 days	(ASTM D 695 on prism sample)
Tensile Strength in Flexure	~33 MPa (7 days)	(BS 6319:Part 3:1990, Clause 8)
Tensile Adhesion Strength	> 2.0 N/mm ² (concrete failure) (after 10 days)	(EN 1542)

APPLICATION INFORMATION

Mixing Ratio	Mixing ratio A : B = 2 : 1 parts by weight	
Yield	1 kg of Sikadur®-52 MY is approximately equal to 0.9 litre injection resin	
Substrate Temperature	+20 °C min. / +40 °C max.	
Pot Life	+20 °C	60 minutes
	+30 °C	30 minutes

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

The substrate must be sound, clean, free from oil and grease, old coatings, and surface treatments.

SUBSTRATE PREPARATION

Concrete, mortar, stone should be thoroughly prepared by high pressure water jetting (150-200 bar) or by mechanical means such as grinding, and chiselling. Cracks must be cleaned with compressed air to remove dust and loosely adhering materials.

MIXING

Add all of part B to part A. Mix with a paddle attached to an electric mixer at slow speed (max. 250 rpm) for at least 3 minutes. Mixing at faster speed and/or longer periods may entrapped air. For part mix, weigh part A and B separately (2:1 by weight) before mixing.

APPLICATION METHOD / TOOLS

Cracks in horizontal slabs

Saturate a few times using a brush or gravity fill them by pouring Sikadur®-52 MY between two "dams", e.g. made from Sikaflex® sealant. Cracks penetrating the slab down to the soffit should first be sealed on the underside, one day in advance, e.g. with Sikadur®-31 CF Normal epoxy mortar or any other suitable epoxy mortar from Sika.

Cracks in vertical structures

Sikadur®-52 MY can be injected by pressure into the cracks using a single component injection pump, such as the Aliva AL-1200 or AL-1250. Injection ports (packers) are set at approximately 25 cm intervals on the crack, and the crack between the two injection ports (packers) is sealed e.g. with Sikadur®-31 CF Normal to prevent the injection resin from escaping during the injection process. Vertical cracks should always be in-

jected from the bottom upwards. As soon as the injection resin oozes out from the adjacent packer/injection port, the current packer/injection port is sealed and the injection process continues on to the next packer/injection port. After completion of the injection process and when Sikadur®-52 MY has hardened, the injection ports (packers) as well as the sealing material between the ports are removed.

CLEANING OF TOOLS

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

IMPORTANT CONSIDERATIONS

- Maximum width of cracks to be injected is 5 mm and minimum is approximately 0.2 mm
- Sikadur®-52 MY is suitable for dry and damp, but not for wet injection conditions
- Sikadur®-52 MY must be free of air bubbles to achieve maximum compressive strength
- Do not thin Sikadur®-52 MY. Solvents may interfere with the curing process
- Sikadur®-52 MY is a highly reactive mixture with a relatively short pot-life. The reaction promotes heat and if this heat is not allowed to escape, a considerable increase in temperature of the mixture is generated. This will result in reduced pot-life for quantities of more than 1 kg. It is therefore important to ensure that the prepared Sikadur®-52 MY mixture can be swiftly injected into the crack. Never prepare Sikadur®-52 MY in large quantities.
- In hot weather application, it may be necessary to pre-cool the components, Part A and Part B (for example in a cool box used for picnic - temperature ~10°C). Precaution must be taken to protect both Parts A and B from becoming wet
- The consumption of material depends entirely on the

prevailing conditions. It is recommended that careful estimation of consumption be made prior to the execution of the work. Make certain that sufficient material is available to complete the work. When injecting load bearing cracks in reinforced concrete structures, steps must be taken to eliminate the load causing the cracks. Otherwise additional cracks may appear at different areas of the concrete

- Injection with synthetic resin compounds requires experienced specialists and trained workers

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.

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.

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.

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 Kimia Sdn. Bhd.

Lot 689, Nilai Industrial Estate, 71800 Nilai
Negeri Sembilan D.K., Malaysia
Phone: +606-7991762
Fax: +606-7991980
e-mail: info@my.sika.com
Website: www.sika.com.my



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