

Sikadur[®]-52 MY

Low viscosity injection resins

Product 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 Data

Form

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|----------------|-------------------|-------------|
| Colours | ■ Part A: | Transparent |
| | ■ Part B: | Brownish |
| | ■ Part A+B mixed: | Light brown |
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Packaging 2 kg and 15 kg sets

Storage

Storage Conditions / Shelf Life 2 years from the date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +30°C. Protect from direct sunlight.

Technical Data

Chemical Base Modified solvent free, two part, epoxy resin



Density (at +20°C)	■ Part A:	~ 1.1 kg/litre
	■ Part B:	~ 0.9 kg/litre
	■ Part A+B mixed (2 : 1):	~ 1.06 kg/litre

Viscosity	■ 290 cps at +20°C
	■ 130 cps at +30°C

Mechanical / Physical Properties

Compressive Strength	~ 90 N/mm ² at 7 days	(ASTM D 695 on prism sample)
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Tensile Strength	~ 25 N/mm ²
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Bond Strength (after 10 days)	■ On concrete	> 2.0 N/mm ² (concrete failure)
	■ On steel	> 15.0 N/mm ² (steel sandblasted)

System Information

Application Details

Consumption / Yield	1 kg of Sikadur [®] -52 MY is approximately equal to 0.9 litre injection resin.
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Substrate Quality	Sound, clean, free from oil and grease, old coatings and surface treatments, etc.
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Substrate Preparation	<i>Pre-treatment for good bond</i> Concrete, mortar, stone should be thoroughly prepared by high pressure water jetting or mechanical means such as grinding, chiselling, etc. Cracks must be cleaned to remove dust with compressed air.
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Application Conditions / Limitations

Substrate Temperature	+20°C min. / +40°C max.
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Application Instructions

Mixing	Mixing ratio A : B = 2 : 1 parts by weight / volume
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Mixing Time	Add all of part B to part A. Mix with an electric mixer at slow speed (max. 250 rpm) for at least 3 minutes. Avoid entraining air.
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Application Method / Tools	<p><i>Cracks in horizontal slabs</i></p> <p>Saturate a few times using a brush or gravity fill them by pouring mixed Sikadur[®]-52 MY between two “dams”, e.g. made from Sikaflex[®] sealant. Cracks penetrating slabs to their soffit should first be sealed on the underside the previous day, e.g. with Sikadur[®]-31 CF Normal epoxy mortar or a suitable cementitious Sika mortar.</p> <p><i>Cracks in vertical structures</i></p> <p>Mixed Sikadur[®]-52 MY can be injected under 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 approx. 25 cm intervals beside the crack and the crack between the injection ports (packers) sealed e.g. with Sikadur[®]-31 CF Normal to prevent injection resin to escape during the injection process. Vertical cracks should always be injected from the bottom upwards. As soon as injection resin oozes out of the next packer / injection port, the first one is sealed and the injection process continued from the next one.</p> <p>After completion of the injection process, the injection ports (packers) as well as the sealing material between the ports are removed.</p>
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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.

Potlife

■ +20°C	60 minutes
■ +30°C	30 minutes

Notes on Application / Limitations

- 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 prevent proper cure
- Sikadur®-52 MY is a highly reactive mixture with a relatively short pot-life. The reaction develops heat and if this heat is not allowed to escape, a considerable increase of the mixture temperature is created. This results in an additionally reduced pot-life for quantities of more than 1 kg. It is therefore important to make sure that the prepared Sikadur®-52 MY mixture can be rapidly injected into the crack and that it is never prepared in large quantities. The width of the crack should not exceed 5 mm
- During hot weather applications, it may be necessary to pre-cool the components (for example in a cool box used for picnic storage - temperature 10°C), but care 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 and to also make certain that sufficient material is kept in reserve. When injecting load bearing cracks in reinforced concrete structures, care must be taken to eliminate the load causing the cracks otherwise another crack in a different area of the concrete may appear
- Injection with synthetic resin compounds requires experienced specialists and trained workers

Value Base

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.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet (available upon request) containing physical, ecological, toxicological and other safety-related data.

Legal Note

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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