BUILDING TRUST

PRODUCT DATA SHEET

Sikadur®-52 ZA

Low viscosity injection resin

DESCRIPTION

Sikadur®-52 ZA is a two part, solvent-free, low viscosity injection-liquid, based on high strength epoxy resins.

USES

As an injection resin with good adhesion to concrete, mortar, stone, steel and wood.
Sikadur®-52 ZA 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
- Usable at low temperatures
- Shrinkage free hardening
- High mechanical and adhesive strengths
- Hard but not brittle
- Low viscosity
- Injectable with single component pumps

PRODUCT INFORMATION

Chemical Base	Modified solvent-free two-part epoxy resin	
Packaging	1.50Ltr (A+B) (1.0Ltr A comp : 0.5Ltr B comp)	Pre-batched unit
	75.0Ltr (A+B) (50.0Ltr A comp : 25.0Ltr B comp)	Pre-batched unit
Colour	Part A	Transparent
	Part B	Brownish
	Part A+B	Yelowish/brownish
Shelf Life	12 months from date of production	
Storage Conditions	Store in dry conditions at temperatures between +5°C and +30°C.	
Density	Part A+B mixed: 1.1 kg/l (at +20°C)	

Viscosity

Temperature	Part A + B mixed
+10°C	~ 1200 cps
+20°C	~ 430 cps
+30°C	~ 220 cps
+40°C	-

TECHNICAL INFORMATION

Compressive Strength	80 N/mm2 (after 7 days at +23°C)	(ASTM D695-96)
Tensile Strength in Flexure	61 N/mm2 (after 7 days at +23°C)	(DIN 53452)
Tensile Strength	37 N/mm2 (after 7 days at +23°C)	(ISO 527)
Tensile Adhesion Strength	To Concrete: > 4 N/mm^2 (failure in concrete) (after 7 days at +23°C)	
Mixing Ratio		
Yield	1kg of Sikadur®-52 ZA is ~ equal to 1 litre injection resin.	
Ambient Air Temperature	+5°C min. / +30°C max.	
Substrate Temperature	+5°C min. / +30°C max.	
Substrate Moisture Content	Dry or damp SSD – (Saturated Surface Dry: no standing water)	

Pot Life

Temperature	1ltr mix
+5°C	~ 120 minutes
+10°C	~ 80 minutes
+23°C	~ 25 minutes
+30°C	~ 10 minutes
+40°C	

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.

LIMITATIONS

Maximum width of cracks to be injected: 5 mm.
Sikadur®-52 ZA is suitable for dry and damp, but not for wet injection conditions.

ECOLOGY HEALTH AND SAFETY

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Concrete should be sound, clean, free from oil and grease, old coatings and surface treatments, etc.

SUBSTRATE PREPARATION

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.

MIXING

Pre-batched packaging:
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.
Bulk packaging:
Add both parts in the correct proportion into a suitable clean, dry container and mix in the same way as for the pre-batched units.

APPLICATION METHOD / TOOLS

Cracks in horizontal slabs:
Saturate a few times using a brush or gravity feed by pouring mixed Sikadur®-52 ZA between two “dams” e.g. made from Sikaflex® sealant.
Cracks penetrating slabs to their soffit, should first be sealed on the underside, e.g. with Sikadur®-31 DW epoxy mortar.
Cracks in vertical structures:
Mixed Sikadur®-52 ZA can be injected under pressure into the cracks using a single component injection pump, such as the Aliva AL-1200, AL-1250 or the Sika® Hand Pump. 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®-31DW 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 / injec-

tion port, the first one is sealed and the injection process continued on the following packer/injection port. After completion of the injection process, 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® Thinner C immediately after use. Hardened / cured material can only be mechanically removed.

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.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

Sika South Africa (Pty) Ltd
9 Hocking Place,
Westmead, 3608
South Africa
Phone +27 31 792 6500
www.sika.co.za