

Product Data Sheet
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Sikadur® -52 Injection Normal

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Low viscosity injection resin

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

Type N (= Normal Potlife) is used for substrate temperatures between +5°C and +30°C.

Uses As an injection resin with good adhesion to concrete, mortar, stone, steel and wood. Sikadur®-52 Injection Normal 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

Tests

Approval / Certificates Concrete Injection for force transmitting filling of cracks, (F) according to EN 1504-5:2004, Declaration of Performance 75687702, certified by notified factory production control certification body 0921, and provided with the CE mark

Fire Classification Report No: 3604/805/13-A by MPA Braunschweig from 17.10.2013

Product Information

Form

Appearance/ Colours Part A: Transparent
Part B: Brownish
Part A+B mixed: Yellowish-brownish

Packaging SET Packaging: Part A+B: 10 x 1 kg units
Bulk packaging: On request



Construction

Density	Component A: 1.121 kg/l	(At 22°C (EN ISO 2811-1))
	Component B: 1.006 kg/l	
	Component A + B mixed (2:1): 1.1 kg/l	

Shelf Life	24 months shelf life from date of production if stored properly in undamaged unopened original sealed packaging
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Storage Conditions	Dry storage at temperatures from +5°C up to +35°C. Protect from direct sunlight and humidity.
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Viscosity (At 23°C (EN ISO 3219))

Temperature	Normal Part A+B mixed (2:1)
+10°C	~ 1200 mPa•s
+20°C	~ 430 mPa•s
+30°C	~ 220 mPa•s
+40°C	-

Technical Information

Compressive Strength (ASTM D695-96)

Time	5°C	23°C	30°C
1 d	-	32 N/mm ²	43 N/mm ²
3 d	11 N/mm ²	52 N/mm ²	51 N/mm ²
7 d	53 N/mm ²	55 N/mm ²	55 N/mm ²
14 d	66 N/mm ²	57 N/mm ²	52 N/mm ²

Modulus of Elasticity in Compression (ASTM D695-96)

Time	5°C	23°C	30°C
1 d	-	700 N/mm ²	650 N/mm ²
3 d	650 N/mm ²	1100 N/mm ²	1000 N/mm ²
7 d	1500 N/mm ²	1250 N/mm ²	1000 N/mm ²
14 d	1550 N/mm ²	1300 N/mm ²	900 N/mm ²

Tensile Strength in Flexure (DIN 53452)

Time	5°C	23°C	30°C
1 d	-	36 N/mm ²	51 N/mm ²
3 d	11 N/mm ²	59 N/mm ²	60 N/mm ²
7 d	38 N/mm ²	63 N/mm ²	67 N/mm ²
14 d	54 N/mm ²	64 N/mm ²	62 N/mm ²

Modulus of Elasticity in Flexure

(DIN 53452)

Time	5°C	23°C	30°C
1 d	-	850 N/mm ²	1450 N/mm ²
3 d	700 N/mm ²	1400 N/mm ²	1600 N/mm ²
7 d	1500 N/mm ²	1600 N/mm ²	1750 N/mm ²
14 d	1700 N/mm ²	1650 N/mm ²	1500 N/mm ²

Tensile Strength

(ISO 527)

Time	5°C	23°C	30°C
1 d	-	23 N/mm ²	26 N/mm ²
3 d	5 N/mm ²	35 N/mm ²	39 N/mm ²
7 d	30 N/mm ²	37 N/mm ²	37 N/mm ²
14 d	40 N/mm ²	40 N/mm ²	37 N/mm ²

Modulus of Elasticity in Tension

(ISO 527)

Time	5°C	23°C	30°C
1 d	-	1250 N/mm ²	1400 N/mm ²
3 d	550 N/mm ²	1800 N/mm ²	1900 N/mm ²
7 d	1800 N/mm ²	1800 N/mm ²	1800 N/mm ²
14 d	2200 N/mm ²	2000 N/mm ²	1800 N/mm ²

Elongation at Break

(ISO 527)

Time	5°C	23°C	30°C
1 d	-	21%	16%
3 d	57%	16%	9%
7 d	22%	8%	7%
14 d	6%	8%	10%

Tensile Adhesion Strength

To concrete:
 > 4 N/mm² (failure in concrete) (after 7 days at +23 °C)
 (acc. to DafStb-Richtlinie, Part 3)

Coefficient of Thermal Expansion8.9 x 10⁻⁵ per °C**Application Information****Mixing Ratio**

Mixing ratio A : B = 2 : 1 parts by weight and by volume

Yield

1 kg of Sikadur®-52 Injection Normal Type N is ~ equal to 1 l injection resin.

Substrate Temperature

+5 °C min. / +30 °C max

Substrate Moisture Content

Dry or damp (SSD - Saturated Surface Dry: no standing water)

Pot Life

Temperature	Normal Type (1 kg mixture)
+5 °C	~ 120 minutes
+10 °C	~ 80 minutes
+23 °C	~ 25 minutes
+30 °C	~ 10 minutes
+40 °C	-

Application Instructions

Substrate Preparation

Requirements:

Sound, clean, free from oil and grease, old coatings and surface treatments etc.

Pre-treatment for good bond:

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

Prebatched 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 prebatched units.

Cleaning of Tools

Clean all tools and application equipment using the Sika® Injection Cleaning System according to the Product Data Sheet. Hardened/cured material can only be removed from external surfaces mechanically

Limitations

Only for professional use.

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

Basis of Product Data

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Local Restrictions

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

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.



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