

# PRODUCT DATA SHEET

## Sikadur<sup>®</sup>-51

### EPOXY FLEXIBLE RESIN FOR SEALING JOINTS

#### DESCRIPTION

Sikadur<sup>®</sup>-51 is a 2- component 100% solids epoxy joint sealant of a putty like consistency based on flexible epoxy resins. After mixing it cures to form a tough but resilient sealant and patching compound.

#### USES

Sikadur<sup>®</sup>-51 may only be used by experienced professionals.

- Filling of horizontal control and construction joints with little or no movement.
- For heavy duty concrete floors and is often used in conjunction with Sikafloor epoxy systems.
- Filling of cracks with little or no movement.

#### CHARACTERISTICS / ADVANTAGES

- It can be used as a safety sealant (non-pick)
- Non-sag on vertical surfaces.
- Movement capability of  $\pm 5\%$
- Permanently flexible, does not stiffen over time.
- Prevents deterioration of joint edges.
- Excellent adhesive properties to many materials.
- Complies with ACI-302.1R (4.10-Materials for sealing together).
- Can be used on slopes up to 15%.
- Durable and resists heavy traffic and forklift tyres.
- Good Chemical resistance.
- Can be applied to damp substrates with use of a primer, Sikadur<sup>®</sup> -52.

#### PRODUCT INFORMATION

Composition	2 component epoxy resin thixotropic paste	
Packaging	Set of 3 kg kits (Parts A + B)	
Colour	Grey concrete	
Shelf life	2 years in original unopened packaging.	
Storage conditions	Between + 5 ° C and + 35 ° C. Condition the material at a temperature between 18 ° C and 24 ° C before use.	
Density	~ 1.55 kg/l a 23°C	
Viscosity	Component A:	5.800 cps
	Component B:	7.900 cps
	Mixed A + B :	7.000 cps

#### TECHNICAL INFORMATION

Shore A hardness	70-80
Shore D Hardness	> 50

<b>Tensile strength</b>	3.9 MPa
<b>Modulus of elasticity in tension</b>	19.3 MPa
<b>Tensile strain at break</b>	90% approx.
<b>Tensile adhesion strength</b>	Steel: 2.5 MPa approx. (sandblasted) Concrete: 2.0 MPa approx. (sandblasted)
<b>Service temperature</b>	-20°C to +50°C

## APPLICATION INFORMATION

<b>Mixing ratio</b>	Comp. A : Comp. B = 2 : 1 (by volume)	
<b>Pot Life</b>	<b>Temperature</b>	<b>Time</b>
	10°C	~2 hours
	20°C	~1 hour
	30°C	~30 mins
<b>Curing rate</b>	For Pedestrian traffic	1-2 days
	For vehicle loading	2-6 days
	(both dependant on temperature)	

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY

All surfaces must be clean, dry and free from any loosely adhering particles or surface contaminants such as dirt, oil, dust, grease, etc.

### SUBSTRATE PREPARATION

The substrate should be clean and firm. All dust, grout, grease, curing agents, adhesion inhibiting impregnations, waxes and any other contaminants should be removed. The concrete must be clean and prepared, removing the surface grout and giving it an open pore texture by abrasive treatment or equivalent mechanical means.

### MIXING

For best results premix each component. Pour Component A and Component B into a clean container in equal parts by volume. Mix properly with low speed drill (400 to 600 rpm) for at least 3 minutes until color is uniform. Mix only the amount to be applied within the life of the product.

### APPLICATION METHOD / TOOLS

**Joint Configuration:** Width : Depth ratio should be 1 : 1 to 1 : 2. Minimum joint depth should be 12 mm. In open joints the correct depth should be established by inserting Sika® Foam Backer Rod Closed Cell of a suitable dimension (refer Sika® Foam Backer Rod Closed Cell PDS). If the joint has a solid formed base it is essential to apply a bond breaker tape to this surface in order to prevent back adhesion. This will then allow the sealant unrestrained movement throughout the depth of the joint.

**Priming:** Priming is not required, except for concrete

surfaces that are slightly damp. Use Sikadur®-52 as a primer, brush it out to form an even and uniform film thickness. Allow primer to become tacky before applying Sikadur®-51.

**Application:** Apply the Sikadur®-51 mixture into the prepared joints or crack using trowel, spatula, caulking gun or low pressure extrusion equipment. Allow the material to flow slowly, to settle and self-level until the joint is completely filled. Scrape and remove excess material where required before it hardens. Ensure the material is fully compacted and firmly in place.

### CLEANING OF EQUIPMENT

Uncured material may be cleaned from application tools etc. by using Sika Colma Cleaner (flammable solvent). Cured material can only be removed mechanically.

## IMPORTANT CONSIDERATIONS

- Do not dilute. The use of solvents can affect the product.
- The minimum temperature of the substrate at the time of placement should be +4°C.
- For best results, the materials should be maintained at a temperature between + 18 ° C and + 24 ° C during application.
- Do not apply on wet substrates.
- This material should not be applied before the concrete is 28 days old. It is recommended to do it between 60 to 90 days, when the shrinkage of the concrete has almost reached its totality.
- This material forms a vapor barrier after drying.
- The transmission of moisture or water vapor in concrete or masonry should be verified before application.
- Material not designed for use in constant immersion of water or any other liquid.
- For application only in joints without movement.

- The good performance of Sikadur®-51 depends on several factors: an adequate design of spacing, width and depth of the joints thermally stable areas, stable humidity of the support base of the slabs, etc.
- To ensure a complete load transfer, when sealing control and / or construction joints, the depth of the same must be completely filled.
- Sikadur®-51 can change color over time, especially if exposed to ultraviolet light, artificial heaters or intense lighting.
- For applications other than sealing joints, consult the local Sika Technical Department.

## 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.

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**Product Data Sheet**

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