BUILDING TRUST

PRODUCT DATA SHEET

Sikadur®-31 CF

THIXOTROPIC EPOXY RESIN ADHESIVE

DESCRIPTION

Sikadur®-31 CF is a moisture tolerant, thixotropic, structural 2-component adhesive and repair mortar, based on epoxy resins and special fillers for use at higher temperatures between +25 °C and +45 °C.

USES

Sikadur®-31 CF may only be used by experienced professionals.
As a structural adhesive and mortar for:
- Concrete elements
- Hard natural stone
- Ceramics, fibre cement
- Mortar, Bricks, Masonry
- Steel, Iron, Aluminium
- Wood
- Polyester, Epoxy
- Glass

As a fast setting rapid repair adhesive and mortar:
- Corners and edges
- Anchoring , Holes and void filling
- For vertical and overhead use

Joint filling and crack sealing:
- Joint arris repair and crack sealing

CHARACTERISTICS / ADVANTAGES

Sikadur®-31 CF has the following advantages:
- Easy to mix and apply
- Very good adhesion to most construction materials
- High strength adhesive
- Thixotropic: non-sag in vertical and overhead applications
- Hardens without shrinkage
- Different coloured components (for mixing control)
- No primer needed
- High initial and ultimate mechanical strength
- Good abrasion resistance
- Impermeable to liquids and water vapour
- Good chemical resistance

APPROVALS / CERTIFICATES

- The product suitable to be used with sewage projects, issued by The Egyptian National Research Center.
- Sikadur® 31CF has been tested as per SCAQMD Method 304-91 . Result: VOC Content < 10 g/L.

PRODUCT INFORMATION

Chemical base	Epoxy resin
Packaging	1 kg and 5 kg units (A+B).
Colour	Component A: grey Component B: black Components A+B mixed: concrete grey
Shelf life	24 months from date of production
Storage conditions	Store in original, unopened, sealed and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight.

Density	All types: Comp. (A): 1.65 kg/l Comp. (B): 1.65 kg/l

TECHNICAL INFORMATION

Compressive Strength

	Normal/Rapid Typeat	L.P Type	
after 10 days		**~60-70 N/mm² at +10-20°C**	**~50 - 60 N/mm2 at +20-30°C**
1 day	+20 °C	~40-45 N/mm²	-
1 day	+30 °C	~35-45 N/mm²	-
1 day	+50 °C	-	~40-45 N/mm²

Tensile Strength in Flexure

Normal/Rapid Type after 10 days at +10-20°C	L.P Type after 10 days at +20-30°C
30 - 40 N/mm².	-

Tensile Strength

Normal/Rapid Type after 10 days at +10-20°C	L.P Type after 10 days at +20-30°C
15 - 20 N/mm2	20 - 25 N/mm2

Modulus of Elasticity in Tension

4'300 N/mm2 (Static)

Shear Strength

	Normal/Rapid Type after 10 days at +10-20°C	L.P Type after 10 days at +20-30°C
Bond strength to concrete	3.5 N/mm2	15 - 20 N/mm2
Bond strength to steel	~15 N/mm2	3-3.5 N/mm² (concrete failure)

Coefficient of Thermal Expansion

50 x 10-6 per ºC (temp. range: -20 ºC to +40 ºC)

APPLICATION INFORMATION

Mixing Ratio

Component A : component B = 2 : 1 by weight

Pot Life

°C	Normal Type	Rapid Type	L.P. Type
40	-	-	25 min.
30	20 min.	-	50 min.
20	40 min.	20 min.	90 min.
10	90 min.	40 min.	-
5	-	60 min.	-

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

- All surfaces must be clean, free from frost, standing water and all loosely adhering particles. Cement laitance must be removed.
- Concrete must be at least 3 - 6 weeks old, depending on climate, wire-brush, sand-or water-blasted or grind substrates.

MIXING

- Mix components (A+B) together for at least 2 minutes with a mixing paddle attached to a slow speed electric drill (max. 600 R.P.M.) until the material becomes smooth in consistency and even grey col-

our of the mixture is obtained.
- Material in industrial packing must be stirred well before proportioning and mixing.
- Avoid aeration while mixing.

APPLICATION METHOD / TOOLS

1. When using a thin film adhesive, apply the mixed adhesive to the surfaces with a trowel, spatula or by glove-protected hand.
2. When applying as a repair mortar, take into account any form work that may be required.
3. On vertical surfaces it is non-sag up to 10 mm thickness.
4. On damp surfaces, ensure that the material is well rubbed in.
5. Max. layer thickness: 30 mm.

CLEANING OF TOOLS

Clean all tools and equipment immediately after use with Colma-Cleaner.

LIMITATIONS

Optimal working temperatures for each grade are:
- Normal Type : 10ºC - 30ºC.
- Rapid Type : 5ºC - 15ºC.
- L.P. Type : 20ºC - 40ºC.

- When working at a higher temperature than recommended, the pot life will be shortened. Similarly when working at lower temperatures, the material will become more difficult to apply and takes longer to harden. When applying to damp concrete, work well into substrates.
- When the working temperature will be above 45°C, please consult our Technical Service
-For rebars anchoring diameter > 18mm. kindly refer to Sika technical office,.
-For High-performance,professional epoxy anchoring adhesive for rebar anchoring, with High load capacity and ETA Approval kindly use Sika AnchorFix® range

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

- **Ecology** In liquid state components (A+B) contaminate water. Do not dispose of into water or soil but according to local regulations.
- **Transport** Comp. A: Non-hazardous.
  Comp. B: All types: 8/65 c).
- **Safety Precautions** Product may cause skin irritations. Wear gloves and goggles.
  If the material is accidentally splashed into the eyes, flush immediately with plenty of warm water and seek medical attention without delay.
- **Toxicity** Class 4, under the relevant Swiss health and safety codes. Observe warnings on packing.

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.

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