

PRODUCT DATA SHEET

Sikadur®-30 LP IN

Thixotropic epoxy structural adhesive for bonding reinforcement

DESCRIPTION

Sikadur®-30 LP IN is a 2-part epoxy based thixotropic structural adhesive which bonds to most construction materials and especially designed for use at higher temperatures between +25 °C and +55 °C. It has high mechanical strength and is used for bonding structural reinforcement and structural strengthening using steel or Sika® CarboDur® plates.

USES

Sikadur®-30 LP IN may only be used by experienced professionals.

Suitable for structural strengthening (Principle 4, Method 4.3 of EN 1504-9). Increasing the bearing capacity of the concrete structure by bonding plate reinforcement.

Adhesive for bonding structural reinforcement, particularly in structural strengthening works, especially for the following uses:

- Sika® CarboDur® plates to concrete, brickwork, timber and steel (for details see the Sika® CarboDur® Product Data Sheet, the “Method Statement for Sika® CarboDur® Externally Bonded Reinforcement” Ref: 850 41 05 and the “Method Statement for Sika® CarboDur® Near Surface Mounted Reinforcement” Ref: 850 41 07).
- Steel plates to concrete (for details see the relevant Sika Technical information).

PRODUCT INFORMATION

Chemical base

Epoxy resin

Packaging

Part A+B pre-batched	6 kg
Part A	4.5 kg container
Part B	1.5 kg container

Shelf life	12 months from date of production	
Storage conditions	The Product must be stored properly in original unopened, sealed and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight.	
Colour	Part A+B mixed	Light grey
	Part A	White
	Part B	Black
Density	~1.8 kg/L (Part A+B mixed, +27 °C)	

SYSTEM INFORMATION

System structure	Reference must be made to the Sika Method Statements: <ul style="list-style-type: none"> ▪ Method Statement: Sika® CarboDur® Externally Bonded Reinforcement - Ref 850 41 05 ▪ Method Statement: Sika® CarboDur® Near Surface Mounted Reinforcement - Ref 850 41 07
-------------------------	---

TECHNICAL INFORMATION

Compressive strength	Curing time	Compressive strength +25 °C	Compressive strength +55 °C	(EN 196-1)	
	12 hours	-	~60 N/mm ²		
	1 day	~75 N/mm ²	~80 N/mm ²		
	3 days	~85 N/mm ²	~90 N/mm ²		
	7 days	~85 N/mm ²	~90 N/mm ²		
Modulus of elasticity in compression	~10 000 N/mm ² (at +25 °C)			(ASTM D695)	
Flexural strength	Curing time	Flexural strength +25 °C	Flexural strength +55 °C	(EN 196-1)	
	1 day	~12 N/mm ²	~20 N/mm ²		
	3 days	~20 N/mm ²	~25 N/mm ²		
	7 days	~25 N/mm ²	~27 N/mm ²		
	Tensile strength	Curing time	Tensile strength +25 °C	Tensile strength +55 °C	(EN ISO 527-2)
	1 day	-	~23 N/mm ²		
	3 days	~12 N/mm ²	~25 N/mm ²		
	7 days	~15 N/mm ²	~25 N/mm ²		
Modulus of elasticity in tension	~10 000 N/mm ² (at +25 °C)			(EN ISO 527-2)	
Shear strength	Curing time	Shear strength +25 °C	Shear strength +40 °C to +55 °C	Shear strength +80 °C	(FIP 5.15)
	> 1 hr	-	-	~17 N/mm ²	
	7 days	~10 N/mm ²	~10 N/mm ²	-	
	Tensile adhesion strength	Curing time and substrate	Tensile adhesion strength +25 °C	Tensile adhesion strength +55 °C	(EN ISO 4624)
	1 day, concrete	> 2.5 N/mm ² (concrete failure)	> 2.5 N/mm ² (concrete failure)		
	1 day, steel	≥ 15 N/mm ²	≥ 18 N/mm ²		
	3 days, steel	≥ 18 N/mm ²	≥ 20 N/mm ²		
Shrinkage	0.04 %			(FIP 5.7)	
Coefficient of thermal expansion	2.5 × 10 ⁻⁵ per °C (Temperature range -20 °C to +40 °C)				
Service temperature	+0 °C to +45 °C (when cured at > +23 °C)				

APPLICATION INFORMATION

Mixing ratio	Part A : Part B = 3 : 1 (by weight)							
Consumption	Consumption will depend on the roughness of the substrate and the type of reinforcement to be bonded. See respective Sika® CarboDur® Product Data Sheet and also refer to: <ul style="list-style-type: none"> ▪ Method Statement: Sika® CarboDur® Externally Bonded Reinforcement - Ref 850 41 05 ▪ Method Statement: Sika® CarboDur® Near Surface Mounted Reinforcement - Ref 850 41 07 							
Layer thickness	30 mm max.							
Sag flow	On vertical surfaces it is non-sag up to 3–5 mm thickness at +55 °C (FIP 5.3)							
Squeezability	~5 400 mm ² at +25 °C with 15 kg weight (FIP 5.4)							
Product temperature	Sikadur®-30 LP IN must be applied at temperatures between +20 °C and +40 °C.							
Ambient air temperature	+25 °C min. / +55 °C max.							
Dew point	Beware of condensation. Substrate temperature during application must be at least +3 °C above dew point.							
Substrate temperature	+25 °C min. / +55 °C max.							
Substrate moisture content	≤ 4 % parts by weight The following test methods can be used: Sika®-Tramex meter, CM-measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).							
Pot life	<table border="1"> <thead> <tr> <th>Temperature</th> <th>Pot life</th> </tr> </thead> <tbody> <tr> <td>+25 °C</td> <td>~60 minutes (100 g mass)</td> </tr> <tr> <td>+55 °C</td> <td>~30 minutes (100 g mass)</td> </tr> </tbody> </table>	Temperature	Pot life	+25 °C	~60 minutes (100 g mass)	+55 °C	~30 minutes (100 g mass)	(FIP 5.1)
Temperature	Pot life							
+25 °C	~60 minutes (100 g mass)							
+55 °C	~30 minutes (100 g mass)							
	The potlife begins when the resin and hardener are mixed. It is shorter at high temperatures and longer at low temperatures. The greater the quantity mixed, the shorter the potlife. To obtain longer workability at high temperatures, the mixed adhesive may be divided into portions. Another method is to chill parts A+B before mixing them (not below +5 °C).							
Open time	<table border="1"> <thead> <tr> <th>Temperature</th> <th>Open time</th> </tr> </thead> <tbody> <tr> <td>+25 °C</td> <td>~80 minutes (100 g mass)</td> </tr> <tr> <td>+55 °C</td> <td>~50 minutes (100 g mass)</td> </tr> </tbody> </table>	Temperature	Open time	+25 °C	~80 minutes (100 g mass)	+55 °C	~50 minutes (100 g mass)	(FIP 5.2)
Temperature	Open time							
+25 °C	~80 minutes (100 g mass)							
+55 °C	~50 minutes (100 g mass)							

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.

FURTHER DOCUMENTS

Reference must be made to the Sika Method Statements:

- Method Statement: Sika® CarboDur® Externally Bonded Reinforcement - Ref 850 41 05
- Method Statement: Sika® CarboDur® Near Surface Mounted Reinforcement - Ref 850 41 07

Also refer to Manual - Sika® CarboHeater 2

IMPORTANT CONSIDERATIONS

Sikadur® resins are formulated to have low creep under permanent loading. However, due to the creep behaviour of all polymer materials under load, the long term structural design load must account for creep. Generally the long term structural design load must be lower than 20–25 % of the failure load. Please consult a structural engineer for load calculations for your specific application.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Substrates must be structurally sound and of sufficient tensile strength to provide a minimum pull off strength of 1.5 N/mm² or as required in the design specification.

Reference must be made to the Sika Method Statements:

- Method Statement: Sika® CarboDur® Externally Bonded Reinforcement - Ref 850 41 05
- Method Statement: Sika® CarboDur® Near Surface Mounted Reinforcement - Ref 850 41 07

SUBSTRATE PREPARATION

Reference must be made to the Sika Method Statements:

- Method Statement: Sika® CarboDur® Externally Bonded Reinforcement - Ref 850 41 05
- Method Statement: Sika® CarboDur® Near Surface Mounted Reinforcement - Ref 850 41 07

MIXING

IMPORTANT

Mix full units only.

IMPORTANT

Over mixing must be avoided to minimise air entrainment.

Note: Always use a mixing spindle attached to a slow speed electric drill (< 300 rpm).

1. Add Part B (hardener) to Part A (resin).
2. Mix Parts A+B continuously for ~3 minutes until a uniformly coloured mix is achieved.
3. To ensure thorough mixing, pour materials into a clean container and mix again for approximately 1 minute.

APPLICATION

Reference must be made to the Sika Method Statements:

- Method Statement: Sika® CarboDur® Externally Bonded Reinforcement - Ref 850 41 05
- Method Statement: Sika® CarboDur® Near Surface Mounted Reinforcement - Ref 850 41 07

Sika India Pvt. Ltd.
620, Diamond Harbour Road
Commercial Complex II
Kolkata - 700 034
West Bengal, India

Contact:
Phone: +91 33 2447 2448
Fax: +91 33 2397 8688
info.india@in.sika.com
www.sika.in



Product Data Sheet
Sikadur®-30 LP IN
September 2023, Version 02.01
020206040010000021

CLEANING OF TOOLS

Clean all tools and application equipment immediately after use with Sika® Colma Cleaner. Hardened material can only be removed mechanically.

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 exact product data and uses.

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.