BUILDING TRUST

PRODUCT DATA SHEET

Sikadur®-330

Thixotropic epoxy impregnating resin for SikaWrap® structural fabrics

DESCRIPTION

Sikadur®-330 is a two-part, thixotropic, epoxy-based impregnating / laminating resin for SikaWrap® structural strengthening fabrics.

USES

Sikadur®-330 may only be used by experienced professionals.

Impregnating / laminating resin for:
- The SikaWrap® fabric reinforcement dry application method
- As a substrate primer for the wet application method

Structural adhesive for bonding:
- Sika® CarboDur® plates
- Sika® CarboDur® NSM (near surface mounted) profiles into surface slots
- SikaWrap FX anchorage cord

CHARACTERISTICS / ADVANTAGES

- Easy to mix
- Application by trowel and impregnation roller
- Formulated for manual saturation methods
- Good application properties for vertical and overhead surfaces
- Good adhesion to many substrates
- High mechanical properties
- No separate primer required

SUSTAINABILITY

- Conformity with LEED v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations
- Conformity with LEED v4 MRc 4 (Option 2): Building Product Disclosure and Optimization – Material Ingredients
- Conformity with LEED v4 EQc 2: Low-Emitting Materials
- IBU Environmental Product Declaration (EPD)
- VOC emission classification GEV-Emicode EC1PLUS, license number 9546/20.10.00

APPROVALS / STANDARDS

- CE Marking and Declaration of Performance to EN 1504-4 - Structural bonding
- France: Technical Approval, CSTB, Avis Technique 3.3/19-1005_V1
- Italy: Certificate of Technical Valuation, CSLLPP, No. 209/2019
- Poland: Technical Approval Sika CarboDur, Nr. IB-DiM-KOT-2019-0361 v.1
- Romania: Technical Agreement, CTPC, No. 016-011401-2019
- Spain: Technical Approval, DIT, No. N604R/19
- Ukraine: Test Report, Ministry of Regional Development (Ukraine), No. 3HT–219–2167.13-001
- Russia: Technical Certificate SikaWrap®, No. 6078-20
- Czech Republic: Technical Approval, ITC, Nr. STO-AO 224-1012/2020

PRODUCT INFORMATION

Chemical base	Epoxy resin
Packaging	4 kg / set (Part A: 3.2 kg; Part B: 0.8 kg)
Shelf life	24 months from date of production

Storage conditions	The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging.

Colour

Part A	White paste
Part B	Grey paste
Parts A + B mixed	Light grey paste

Density

1.3 ± 0.1 kg/l (mixed resin, at +23 °C)

Viscosity

Shear rate: 50 / s

Temperature	Viscosity
+10 °C	~10'000 mPa·s
+23 °C	~6'000 mPa·s
+35 °C	~5'000 mPa·s

SYSTEM INFORMATION

System Structure

Substrate primer: Sikadur®-330
Impregnating / laminating resin: Sikadur®-330
Structural strengthening fabric - SikaWrap® type to suit requirements

TECHNICAL INFORMATION

Modulus of Elasticity in Flexure	~3'800 N/mm² (±10%, 7 days at +23 °C)	(DIN EN 1465)
Tensile Strength	~30 N/mm² (±10%, 7 days at +23 °C)	(ISO 527)
Modulus of Elasticity in Tension	~4'500 N/mm² (±10%, 7 days at +23 °C)	(ISO 527)
Elongation at Break	~0.9 % (7 days at +23 °C)	(ISO 527)
Tensile Adhesion Strength	> 4 N/mm² (or concrete fracture, on sandblasted concrete substrate)	(EN ISO 4624)
Coefficient of Thermal Expansion	~4.5 × 10^{-5} 1/K (linear expansion between -10 °C and +40 °C)	(EN 1770)
Service temperature	–40 °C to +45 °C	

Glass Transition Temperature (EN 12614)

Curing time	Curing temperature	TG
30 days	+30 °C	+58 °C

Heat Deflection Temperature (ASTM D 648)

Curing time	Curing temperature	HDT
7 days	+10 °C	+36 °C
7 days	+23 °C	+47 °C
7 days	+35 °C	+53 °C

Resistant to continuous exposure +45 °C.

APPLICATION INFORMATION

Mixing ratio	Part A : Part B = 4 : 1 by weight
Consumption	Guide: ~0.7–1.5 kg/m² Please also refer to the relevant Method Statement.
Ambient Air Temperature	+10 °C min. / +35 °C max.
Dew Point	Beware of condensation. The substrate and uncured applied resin must be at least +3 °C above dew point to reduce the risk of condensation or blooming on the resin surface.

Substrate Temperature	+10 °C min. / +35 °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 D4263 (Polyethylene-sheet).

Pot Life (EN ISO 9514)

Temperature	Pot life	Open time
+10 °C	~90 mins (5 kg)	~90 mins
+23 °C	~60 mins (5 kg)	~60 mins
+35 °C	~30 mins (5 kg)	~30 mins

The pot life 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 pot life. To obtain longer workability at high temperatures, the mixed adhesive may be divided into portions. Another method is to chill components A+B before mixing them (not below +5 °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.

IMPORTANT CONSIDERATION

- 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 the specific application.
- At low temperatures and / or high relative humidity, a tacky residue (blush) may form on the surface of the cured product. If an additional layer of fabric or a coating is to be applied onto the cured product, this residue must first be removed with warm, soapy water to ensure adequate bond.
- If the surface of the cured product becomes wet or damp, dry before application of the next layer or coating.
- Protect from rain for at least 24 hours after application.
- Ensure placement of fabric and laminating with roller takes place within open time.
- For application in cold or hot conditions, pre-condition material for 24 hours in temperature-controlled storage facilities to improve mixing, application and pot life limits.
- For further information on number of layers or creep, consult a structural engineer for calculations. Also refer to the relevant Method Statement.

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 tensile strength of 1.0 N/mm² or as required in the design specification. Please refer to the relevant Method Statement.

SUBSTRATE PREPARATION

See the relevant Method Statement.

MIXING

Important: Avoid over mixing to minimise air entrainment.
Note: Use a spiral paddle in an electric single mixer at a maximum speed of 300 rpm.

Important: Mix full units only
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 METHOD / TOOLS

Please refer to the relevant Method Statement.

CLEANING OF TOOLS

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

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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