BUILDING TRUST

PRODUCT DATA SHEET

Sikadur®-32 LP

2-COMPONENT STRUCTURAL EPOXY BONDING AGENT

DESCRIPTION

Sikadur®-32 LP is a moisture tolerant, structural, two part bonding agent, based on a combination of epoxy resins and special fillers, designed with a longer pot-life or working time for use at higher temperatures, between +20 °C and +40 °C.
Suitable for use in hot and tropical climatic conditions.

USES

Sikadur®-32 LP may only be used by experienced professionals.
As a structural bonding agent for bonding fresh to hardened concrete.

CHARACTERISTICS / ADVANTAGES

Sikadur®-32 LP has the following advantages:
- Easy to mix and apply
- Suitable for dry and damp concrete surfaces
- High bond strength
- Hardens without shrinkage
- Different coloured components (for mixing control)
- No primer needed
- High initial and ultimate mechanical strength
- Impermeable to liquids and water vapour
- Good chemical resistance

APPROVALS / CERTIFICATES

- Structural bonding agent tested according to EN 1504-4.

PRODUCT INFORMATION

Composition	Epoxy resin
Packaging	5 kg (A + B) 25 kg (A + B)
Colour	Component A: White Component B: Dark grey Components A + B: 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	~1.4 kg/l (+23 °C) (mixed component A + B)

TECHNICAL INFORMATION

Compressive Strength (ASTM D 695-95) (EN 1504-4)

Curing time	Curing temperature		
	+23 °C	**+30 °C**	**+40 °C**
1 d	–	~2 N/mm²	~30 N/mm²
3 d	~14 N/mm²	~24 N/mm²	~41 N/mm²
7 d	~34 N/mm²	~38 N/mm²	~52 N/mm²
14 d	~39 N/mm²	~43 N/mm²	~56 N/mm²

Compressive strength at 4 % elogation

Tensile Adhesion Strength (EN ISO 4624) (EN 1542) (EN 12188)

Curing time	Substrate	Curing temperature	Adhesion strength
7 d	Concrete dry	+23 °C	> 3 N/mm² *
7 d	Concrete moist	+23 °C	> 3 N/mm² *
1 d	Steel	+23 °C	~8 N/mm²
3 d	Steel	+23 °C	~12 N/mm²
3 d	Steel	+30 °C	~13 N/mm²
3 d	Steel	+40 °C	~15 N/mm²

*100 % concrete failure

Shrinkage

Hardens without shrinkage.

APPLICATION INFORMATION

Mixing Ratio

Component A : Component B = 2 : 1 (by weight or volume)

Consumption

The consumption of Sikadur®-32 LP is approximately 1.3 kg/m² per mm of thickness

Layer Thickness

~1 mm max.

Sag Flow

On vertical surfaces it is non-sag up to approximately 1 millimetre thickness. (EN 1799)

Product Temperature

Sikadur®-32 LP must be applied at temperatures between +20 °C and +40 °C

Ambient Air Temperature

+20 °C min. / +40 °C max.

Dew Point

Beware of condensation.
Substrate temperature during application must be at least 3 °C above dew point.

Substrate Temperature

+20 °C min. / +40 °C max.

Substrate Moisture Content

Substrate must be dry or mat damp (no standing water)
Brush the material well into the substrate

Pot Life (EN ISO 9514)

Temperature	Potlife*	Open time
+20 °C	~145 min	–
+30 °C	~55 min	~240 min
+40 °C	~35 min	~120 min

*200 g
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 components A and B before mixing them (not below +5 °C).

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

The substrate surface (all types) must be clean, dry or mat damp (no standing water) and free from contaminants such as dirt, oil, grease, existing surface treatments and coatings etc.
Steel substrates must be de-rusted to a condition similar to Sa 2.5.
The substrate must be sound and all loose or friable particles must be removed.

SUBSTRATE PREPARATION

Concrete, mortar, stone and brick
Concrete and other hardened mineral substrates must be prepared by suitable means such as high pressure water jetting and / or blast cleaning, in order to obtain surfaces that are sound, clean, dry or mat damp (no standing water) and free from any cement laitance, ice, grease, oils, old coatings or other surface treatments. Any loose or friable particles must also be removed to achieve a contaminant free and open textured surface.

Steel
Steel surface must be cleaned and prepared thoroughly to an acceptable quality standard equivalent to Sa 2.5 that is normally by blast cleaning and then removing any dust by vacuum. Avoid dew point conditions.

MIXING

Pre-batched units:
Mix components A and B together for at least 3 minutes with a mixing spindle attached to a slow speed electric drill (maximum 300 rpm) until the material becomes smooth in consistency and a uniform grey colour. Avoid aeration while mixing. Then, pour the whole mix into a clean container and stir again for approximately 1 more minute at low speed to keep air entrapment at a minimum. Mix only that quantity which can be used within its potlife.

APPLICATION METHOD / TOOLS

Apply the mixed Sikadur®-32 LP to the prepared surface by brush, roller, spray or with a trowel, and ensure uniform and complete coverage. On hardened concrete substrates mechanically prepared to receive fresh concrete, always apply by brush and work the material well into the substrate.
Place the fresh concrete whilst the Sikadur®-32 LP layer is still 'tacky'. If the material becomes glossy and loses tackiness, apply a fresh coat with additional Sikadur®-32 LP and proceed.

CLEANING OF EQUIPMENT

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

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 the specific application.

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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