BUILDING TRUST

PRODUCT DATA SHEET

Sikadur®-42 (au)

High strength pourable epoxy resin grout

DESCRIPTION

Sikadur®-42 (au) is a 3-component pourable grout based on epoxy resin and selected aggregates. Sikadur®-42 (au) cures to form a hardened mortar with excellent adhesion to many substrates. It's ease of application makes it ideally suited to high performance grouting in critical site applications.

USES

Sikadur®-42 (au) has been developed for use in building and civil engineering applications such as:
- Crane rails
- Machine bedding and baseplates
- Holding down bolts
- Starter bars
- Cavity filling
- Bridge bearing pads
- Precast grouting

As a self smoothing mortar: Repairing and patching horizontal surfaces

CHARACTERISTICS / ADVANTAGES

- Insensitive to moisture during application, cure or whilst in service
- Applicable at low temperatures down to 5°C.
- High early strength
- Excellent adhesion to a wide variety of dry and damp substrates such as concrete, stone, fibrous cement, synthetic resins, wood and most metals.
- High tensile and flexural strength, vibration resistant.
- Supplied in factory proportioned units
- Easy to use
- Unaffected by wide range of chemicals
- Good flow characteristics even in thin layers
- Proven track record

PRODUCT INFORMATION

Chemical Base	Three Component Epoxy Grout		
Packaging	7.92 litre unit (~15 kg unit)		
Colour	Grey Epoxy resin		
Shelf Life	~24 months from date of manufacture		
Storage Conditions	Store under dry conditions in out of direct sunlight.(minimum 5°C - maximum 35°C)		
Density	Approx. 2.0 kg per/lt (2000 kg/1000 lt)		
Compressive Strength	**1 Day** ~50 MPa	**7 Day** ~70 MPa	(AS1478.2:2005) 50 mm x 50 mm cube
Tensile Strength	~8 MPa @ 7 days		(BS 6319)

APPLICATION INFORMATION

Mixing Ratio	A : B : C= 2 : 1 : 12 by weight
Yield	~ 7.92 litres for 15 kg unit
Layer Thickness	Generally, suitable thickness depends on clearance, distance of flow, ambient and substrate temperatures and pour size. Range of application typically 10 mm - 60 mm.
Pot Life	**Temperature - 7.92 litre unit** / **Time** ~20°C / 65 mins ~35°C / 35 mins
Curing Time	7 days full cure @ 23°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.

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.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Mortar and concrete must be older than 28 days (dependent on minimum strength requirements). Verify the substrate strength (concrete, natural stone, etc.). The substrate surface (all types) must be clean, dry and free from contaminants such as dirt, oil, grease, existing surface treatments and coatings, etc. Steel substrates must be de-rusted to a standard equivalent to Sa 2.5. The substrate must be sound and all loose particles must be removed. Substrate must be dry or mat damp and free from any standing water, ice, etc.

SUBSTRATE PREPARATION

Concrete, mortar, stone: Substrates must be sound, dry, clean and free from laitance, ice, standing water, grease, oils, old surface treatments or coatings and all loose or friable particles must be removed to achieve a laitance and contaminant free, open textured surface.
Steel: Must be cleaned and prepared thoroughly to an acceptable quality standard equivalent to SA 2.5 i.e. by blastcleaning and vacuum. Avoid dew point conditions.
Surface and base plate contact area must be clean and sound. For best results, the substrate shall be dry. Remove dust, laitance, oils, grease, curing compounds, impregnations, waxes, foreign particles, coatings, and disintegrated materials by mechanical means, i.e. chip ping with a chisel, blastcleaning, etc. All anchor pockets or sleeves must be free of water. Apply grout immediately to prevent re-oxidizing / rust formation. For optimum results: When grouting areas or equipment that is sensitive to vibration, it is recommended that the contact surfaces are prepared according to the latest edition of the American Petroleum Institute's Recommended Practice 686 "Machinery Installation and Installation Design" Chapter 7.

MIXING

Mix components A and B in the component A pail for approx. 30–60 seconds with a Sika mixing spindle attached to a low speed drill (300–450 rpm). Avoid aeration while mixing until the material becomes uniformly blended in colour and viscosity. Place the mixed epoxy into an appropriate mixing vessel. Slowly add the contents of component C (to keep air entrapment at a minimum) dependent on flow requirements (observe the correct mixing ratio) and mix with mixing spindle until uniform and homogeneous (approx. 3 minutes). Mix only that quantity which can be used within its potlife. Never mix Component A and B without adding component C (as the exothermic reaction between A and B alone generates excess heat). Leave Sikadur®-42 (au) to stand in the normal mixing vessel for 2 – 3 minutes until the majority of entrained air bubbles have dispersed.

APPLICATION METHOD / TOOLS

- The consistency of the Sikadur®-42 (au) epoxy grout system requires the use of permanent or temporary forms to contain the material around base plates, for example. In order to prevent leakage or seepage, all of these forms must be sealed.
- Apply polyethylene film to all forms to prevent adhesion of the grout. Prepare the formwork to maintain more than 100 mm liquid head to facilitate placement.
- A grout box equipped with an inclined trough attached to the form will enhance the grout flow and minimize air encapsulation.
- Pour the mixed grout into the prepared forms from one or two sides only, to eliminate air entrapment.
- Maintain the liquid head to ensure intimate contact to the base plate.
- Place sufficient epoxy grout in the forms to rise slightly above the underside (3 mm) of the base plate. The minimum void depth beneath the base-

plate shall be 10 mm. Where the void beneath the base plate is greater than 60 mm, place the epoxy grout in successive 60 mm lifts or less, once the preceding lift has cooled.
- Once hardened check the adhesion by tapping with a hammer.

CLEANING OF TOOLS

Sweep excess grout into appropriate containers for disposal before it has hardened. Dispose of in accordance with applicable local regulations. Uncured material can be removed with Sika Thinner C (NZ). Cured material can only be removed mechanically.

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.

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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