

Sikadur®-42 HS

High Strength Pourable Epoxy Grout

Product Description

Sikadur®-42 HS is a 3-part pourable grout based on a combination of epoxy resins and specially graded aggregates. After mixing, it forms a flowable mortar, suitable for grouting and filling.

Uses

As a self-levelling mortar on:

- Concrete and stone
- Mortar and plasterwork
- Steel, aluminium and iron
- Asbestos cement and wood
- Polyester, epoxy, etc.

Rigid connections:

- Connecting irons
- Iron ties
- Mounting supports
- Tie rods

Grouting of:

- Guide rails
- Rail posts
- Support plates
- Machine foundations
- Bridge supports
- Sleeper-less rail fixations
- Crane rails

Characteristics / Advantages

- Fast, accurate fixing. Holding down bolts and machines may be grouted to tolerance before or after positioning.
- Rapid strength gain. Minimum standing time. Substantial loading may be applied after only six hours and high strength reached after 24 hours at 20°C. No primer is required.
- Cost reduction. The ease and simplicity of Sikadur®-42 HS reduces actual fixing cost and produces savings in labour and waiting time.
- Shrinkage free hardening
- High mechanical strength
- Hardens even at high humidity
- High resistance against abrasion impact and vibration
- Components of different colour – therefore good control of homogeneity during mixing
- Can be applied on dry and damp surfaces (no standing water)
- Good flow characteristics even in thin layers

Construction



Product Data

Form

Appearance / Colours	Part A:	Transparent
	Part B:	Transparent
	Part C:	Grey
	Parts A+B+ C (mixed):	Grey

Packaging 25 kg sets (parts A+B+C). Bulk packaging available upon request

Storage

Storage Conditions / Shelf Life 24 months from the date of production if stored properly in original, unopened and undamaged packaging in dry conditions at temperatures between +5°C and +30°C
Keep away from direct sunlight..

Technical Data

Chemical Base Epoxy

Density ~ 2.0 kg/ltr

Viscosity (+25°C)	Part A:	~ 4400 ± 100 cps
	Part B:	~ 14 – 18 cps
	Parts A+B+C (mixed):	Self-levelling mortar

Mechanical / Physical Properties

Compressive Strength ~100 N/mm² (BS 6319: Part 2)

Flexural Strength ~ 20 N/mm² (BS 6319: Part 3)

Tensile Strength ~ 14 N/mm² (BS 6319: Part 7)

Slant Shear Bond Strength ~ 20 N/mm² (BS 6319: Part 4)

E-Modulus in Compression ~ 15,000 N/mm² (BS 6319: Part 6)

Bond Strength To Concrete ~ 3 N/mm² (concrete failure)

Bond Strength to Steel ~ 34 N/mm²

System Information

Application Details

Yield ~ 12.5 ltr of grout per 25 kg set

Substrate Quality Substrate and contact area of base plate, etc. must be both clean and sound. Remove laitance, oils and grease by sandblasting or bush hammering.

Substrate Preparation / Forming Vacuum clean. Sandblast bottom of base plates and wipe clean with approved metal-cleaning solvent.

Remove defective areas and patch with Sikadur[®]-41 LP (refer to separate Product Data Sheet for details). Allow to cure.

Due to flowable consistency, seal the forms to prevent seepage. Apply wax to forms or use other bond breaking materials to prevent adhesion of epoxy grout.

Application Instructions

Mixing Mixing ratio Parts A : B : C = 2 : 1 : 12 parts by weight

Mix all of Part B (hardener) with all of Part A (resin) for at least 2 minutes with a slow speed electric drill (maximum 500 rpm) until a smooth consistency and streakfree colour is achieved.

Then add all of Part C (aggregates) and continue mixing until a homogeneous mortar is obtained. Use immediately.

For large volume pours, a pan mixer may be used to mix in the Part C.

Application Method / Tools *Grouting Under In-Place Equipment*
Pour mixed Sikadur[®]-42 HS into forms. The low viscosity allows it to flow steadily during its pot-life. Chaining or rodding may be necessary under difficult conditions.

Grouting New Pads
Set levelling shims or adjusting screws. Pour grout in single or multiple lifts from 25 to 40 mm thick. Maintain 50 mm minimum liquid head to ensure intimate contact between grout and plate.

Pressure head may be used to increase flow rate and distance, if desired. Machine base must nest in Sikadur[®]-42 HS pad. Place sufficient grout in form to rise slightly above underside of machine base. Strip forms after cure.

Cleaning of Tools Clean all tools and application equipment with water immediately after use. Hardened and/or cured material can only be mechanically removed.

Potlife (25 kg, +20°C) 40 minutes

Notes on Application / Limitations

- Maximum thickness per layer: 4 cm
- Minimum age of new concrete: 3 – 6 weeks (depending on climate)
- Application and substrate temperature: +20°C to +40°C
- Do not thin Sikadur[®]-42 HS
- If thickness of pour exceeds 40 mm adequate precautions against thermal shock must be taken. These may include:
 - Protecting from water and rain for the first 24 hours
 - Insulating with polystyrene boards and maintaining formwork for at least 24 hours
 - Provide a reinforcement cage to ensure even distribution of the heat generated

Sika's Technical Service Department should be consulted in all cases where depth of pour is in excess of 40 mm.

Value Base

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.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet (available upon request) containing physical, ecological, toxicological and other safety-related data.

Legal Note

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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