

Sikadur[®]-42 HF

Very High Flow, Cost Effective Epoxy Resin Grout

Description	Sikadur-42 HF is a pourable, multi-functional high density epoxy grout based on a 2-component solvent free epoxy resin system containing fine fillers. Sikadur-42 HF exhibits excellent flow characteristics in general grouting applications.
Uses	As a grout for manufacturing plants and civil engineering application: <ul style="list-style-type: none">▪ Crane rails▪ Machine bedding and baseplates▪ Holding down bolts▪ Stanchions▪ Starter bars▪ Cavity filling▪ Bridge bearings
Advantages	<ul style="list-style-type: none">▪ Cost effective epoxy grout▪ Applicable at low temperatures.▪ High mechanical strengths.▪ High flow characteristics▪ Supplied in factory proportioned units.▪ Shrink free.▪ Can be bulked out with aggregate of thicker pour applications▪ Excellent chemical resistance to water, sea water, waste water, sewage, fuels, oils, dilute acids and dilute alkalis.
Storage and Shelf Life	Minimum shelf life is approximately 3 years. Store under controlled conditions in original containers (minimum 5°C, maximum 35°C temperature range).
Instructions for Use	
Substrate Surface Preparation	<p>Mineral/Resin Substrates. Mechanically roughened, free from all contaminants (eg. dust, oils, grease, ice, etc.), surface water, laitance, old form oil, curing membrane and old coatings. Suitable methods of preparation include blast cleaning and scabbling (sanding/grinding on fibrous cement). All dirt must be removed from bolt by air blasting.</p> <p>Iron/Steel. Mechanically cleaned, free from all contaminants (dust, oils, grease, etc), coatings and corrosion products and surface water for maximum bond strengths. Suitable methods include blast cleaning to minimum standard SA2 AS 1627.9 or equivalent method to ST3 AS 1627.9.</p>
Mixing	Prior to mixing the components should be stored at 15-20°C for the previous 24 hours. Mix all of component A (Grey Resin) with all of component B (Hardener) using a slow speed drill (maximum 600 rpm) and windmill stirrer. Mix until a homogeneous and streak free mixture results.
Application	<p>Mixed Sikadur-42 HF should be poured into the void or formwork from one side to avoid the entrapment of air. Continuous grout flow is essential and there must be sufficient grout available before pouring.</p> <p>Machine Base Plates & Crane Rails: An adequate head must be maintained to ensure continuous flow. Continue pouring until the grout rises above the level of the plate. At no time during application should the grout head be less than 75 mm above the level of the plate. This, as well as adequate vent holes, is essential to ensure no air is trapped.</p> <p>Anchor Bolts and Dowels: For bolts placed into preformed holes, fill the hole with Sikadur-42 HF and place into the grout.</p>



Technical and Physical Data

Form	Pourable grout	
Density	2.0 kg / litre approx.	
Volume solids	100% (solvent free)	
Compressive Strength (at 20°C) (AS 1478.2)	24 hours	50 MPa
	7 days	90 MPa
	14 days	92 MPa
Tensile Strength (DIN 42 HF455)	25 MPa @ 20°C approx.	
Modulus of elasticity (FIP 5.13) 14 days, 20°C	Dynamic 7,800 MPa approx.	
	Static 6,300 MPa approx.	
Flexural strength @ 14 days (ASTM C348)	35 MPa approx.	
Shore D hardness @ 20°C after 10 days	81 approx.	
Impact resistance	0.254 MPa approx.	
	Izod JIS-K-6911	
Adhesion to steel (dry)	10 to 13 MPa approx. (cohesive failure of epoxy)	
Adhesion to concrete (underwater) (EN 1542)	2.5 to 3.5 MPa approx. (cohesive failure to concrete)	
Insulation resistance (volume)	@ 20°C 8.2×10^{13} ohm cm approx.	
	@ 60°C 7.0×10^9 ohm cm approx.	
Mix proportions by weight	A : B = 8 : 1	
Mix proportions by volume	A : B = 3.6 : 1	
Viscosity @ 25°C	4.5 Pa.s approx.	
Potlife	50 minutes approx. @ 20°C for 1.8 kg mix	
	35 minutes approx. @ 20°C for 18 kg mix	
	(The temperature at which the Sikadur-42 HF is stored during the 24 hours before it is mixed will govern its potlife when mixed).	
Cure time	24 hours at 20°C	
Application Temperature (min. – max.)	5°C - 35°C	
Consumption/Coverage	2.0 kg/m ² approx. per mm thickness	
Grout thickness	0.5mm – 75mm	
Colour	Mixed: Grey	
Packaging	6 kg and 18 kg net pre-proportioned kits	
Cleaning	Uncured material may be cleaned from application tools, etc. by using Sika Colma Cleaner (flammable solvent). Cured material can only be removed mechanically.	



Important Notes

- Do not part mix kits.
- Only mix as many kits as can be applied within the stated potlife.
- Do not dilute the product with solvent as this will affect both the cure and in-service performance of the product.
- Minimum thickness 0.5mm, maximum thickness 75mm.
- The temperature at which the Sikadur-42 HF is stored during the 24 hours before it is mixed will govern its potlife when mixed.
- Minimum age of new concrete, 4 to 6 weeks.
- Sikadur-42 HF will rise in temperature when mixing. The extent of this temperature rise will depend upon the volume to surface ratio and the ambient and substrate temperature.

Handling Precautions

- Avoid contact with the skin, eyes and avoid breathing its vapour.
- Wear protective gloves when mixing or using.
- If poisoning occurs, contact a doctor or Poisons Information Centre.
- If swallowed, do NOT induce vomiting. Give a glass of water.
- If skin contact occurs, remove contaminated clothing and wash skin thoroughly.
- If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.
- For more detailed information refer to our Safety Data Sheet.

Disclaimer

Sikagrout and Sikadur products are tested in accordance with Australian Standards and/or Internationally accepted Standards. The published performance data is achieved by testing strictly in accordance to the procedures of these standards.

Any test procedures performed by others on our products that are not in strict accordance with the standard in every facet will likely produce results different from the published above. On site testing by others can be affected by external factors such as incorrect mixing methods, poor sampling techniques, varying temperatures, curing, crushing procedures etc.

Sika can provide Certificates of Compliance of all products delivered to site prior to installation if required.

If results of site testing or testing facilities by others vary from the Sika published data we recommend the following items be reviewed before contacting the manufacturer as one or all of these items could be influencing the results attained on site.

These include but are not limited to the following: site conditions, ambient, substrate and product temperature, mixing equipment, mixer speed, pump equipment, contractor experience, and incorrect test methods.

Sika Australia do not take responsibility nor have to make a case for any such tests where results of testing by others do not achieve the published data as above.



Important Notification

The information, and, in particular, the recommendations relating to the application and end-use of Sika's 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 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 proprietary rights of third parties must be observed. All orders are accepted subject of our terms and conditions of sale. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request.

PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.



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