Construction

Sikadur®-41

High strength epoxy resin patching mortar

Description	Sikadur-41 is a 3-component thixotropic mortar based on a solvent free epoxy resin and selected aggregates. The fully cured mortar exhibits physical and mechanical properties. Sikadur-41 is easy to apply and is ideally suited to site application.
Uses	Sikadur-41 may be used as a repair or patching mortar for many mineral substrates including concrete, cement mortar and stone. The ease of application and tolerance of site conditions ensures the product can be used to repair or restore profiles on pre-cast or cast in situ concrete elements as well as a general void filler for both vertical and overhead work. Suitable also as an abrasion and impact resistant coating.
Advantages	▪ Insensitive to moisture during application, cure or whilst in service. Bonds to damp concrete. ▪ Applicable at low temperatures. ▪ Available in two grades (Normal and Long Potlife). ▪ High abrasion and impact resistant. ▪ High early strength. ▪ Approved for contact with potable water. ▪ High tensile and flexural strength. ▪ Supplied in factory proportioned units. ▪ Easily applied ▪ Resistant to dilute acid, alkalis and most oils etc. ▪ Proven in service. ▪ Shrink free. ▪ Two components of different colours enabling visual control of degree of mixing.
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

Surface Preparation	The surface must be prepared in accordance with the recommendations on the Technical Data Sheet for the selected primer. The primer surface must be tacky and free from dust and surface water.
Priming	Sikadur-31 or 32 for damp, highly porous, or metallic substrates and Sikadur-31 for vertical and overhead substrates. Sikadur-52 for dense substrate. The primer must be worked well into the substrate and provide an even continuous film. The mortar must be applied whilst the primer is tacky. Note: It is possible to apply Sikadur-41 without any primer; however, best results are obtained if the correct primer is used.

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Mixing	Sikadur-41 is supplied in factory-proportioned units comprising the correct quantities of Part A (resin-white/light grey in colour), Part B (hardener – black in colour) and Part C (aggregate – sand in colour). Thoroughly stir Parts A and B separately using a slow running drill/stirrer with a helix paste mixer (max. speed 600 rpm). Decant all of Part B into Part A and mix thoroughly together until a uniform colour is achieved (typically 3 mins). A streaky colouration is indicative of inadequate or incomplete mixing. Continue to mix whilst adding Part C slowly. Ensure the attainment of an even colour and an even distribution of aggregate throughout the mix. Small packs may be hand mixed provided an even colour is achieved, however, power mixing is preferred at all times.
Application	Apply Sikadur-41 to the primed substrate by trowel, float, spatula or gloved hand. The material is to be well compacted. Strike off to required line and finish with a steel float. Ensure the thickness of the layer is not less than 3mm. It is good practice to build up thickness greater than 30mm in layers.
Cleaning	Uncured material may be cleaned from application tools etc. by using Sika Colma Cleaner (flammable solvent). Cured material can only be removed mechanically.

Technical and Physical Data

Form	Thixotropic mortar	
Density	1.9 kg / litre approx.	
Volume of solids	100% (solvent free)	
Mix ratio	A : B : C = 2 : 1 : 3 by weight (Part C can be reduced by 10-15% depending on application)	
Secant Flexural Modulus of Elasticity (BS 6319) @ 7 days	Normal @ 20°C 15 GPa approx.	Long Potlife @ 35°C 14 GPa approx.
Compressive strength **@ 7 days (BS 6319)** **@ 24 hours**	Normal @ 20°C 75 MPa approx. 55 MPa approx.	Long Potlife @ 35°C 70 MPa approx. 52 MPa approx.
Flexural strength @ 7 days (BS 6319)	Normal @ 20°C 27 MPa approx.	Long Potlife @ 35°C 27 MPa approx.
Tensile strength @ 7 days (BS 6319)	Normal @ 20°C 15 MPa approx.	Long Potlife @ 35°C 16 MPa approx.
Application Temperature (min. – max.)	5°C – 30°C (Normal) 25°C - 40°C (Long Potlife) (substrate and ambient temperatures)	
Consumption/Coverage	2.0 kg/m^2 approx. per mm thickness (dependent on surface profile, texture, temperature, loss and wastage)	
Colour	Part A – White/Light Grey, Part B – Black Mixed product uniform grey colouration	
Packaging	10kg, net pre-proportioned kits	

Potlife

Temperature	Normal	Long Potlife
20°C	75 mins approx.	140 mins approx.
35°C	55 mins approx.	70 mins approx.

*not recommended for use at these temperatures

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Important Notes

- Do not apply Sikadur-41 to surfaces with standing water.
- Do not part mix containers
- Maximum thickness per application 60 mm
- Do not apply to a cured primer
- Allow concrete to cure for at least 6 weeks before applying Sikadur-41
- Only mix as much material 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.
- Constant in-service temperatures >70°C may affect the performance of the product.
- Do not apply in large areas eg. render or floor screed unless a damp proof membrane is in place.
- Prior to using as a repair mortar for spalling concrete refer to our Technical Department to ensure suitability.
- If in doubt, consult our Technical Department.
- The temperature at which the Sikadur-41 is stored during the 24 hours before it is mixed will govern it's potlife when mixed.
- Compressive strengths etc. of epoxy resins must be qualified by the testing method eg. Test Standard or size of specimen under test and the rate at which the test piece is loaded while under test, as these factors will affect the result markedly. Faster loading rates will generally give higher ultimate loads and vice versa. Also a specimen at lower temperature will show higher strengths and vice versa.

Handling Precautions

- Avoid contact with the skin, eyes and avoid breathing it's 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 Material Safety Data Sheet.

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 Australian version 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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Sika Australia Pty Limited
ABN 12 001 342 329

www.sika.com.au
Tel: 1300 22 33 48