

PRODUCT DATA SHEET

Sikadur®-42 MP Slow

Multipurpose epoxy grout for warm climates

DESCRIPTION

Sikadur®-42 MP Slow is a three-part, multipurpose, moisture-tolerant epoxy grout. It is used at temperatures between +20 °C and +40 °C.

USES

Sikadur®-42 MP Slow may only be used by experienced professionals.

Sikadur®-42 MP Slow is used for high-strength grouting and fixing of the following elements:

- Starter bars
- Anchors
- Fasteners
- Tie rods
- Crash barrier posts
- Fence and railing posts

Sikadur®-42 MP Slow is used for precision undergrouting and bedding of the following elements:

- Base plates
- Machine bases, base plates for light and heavy machinery including heavy-impact and vibratory machinery, reciprocating engines, compressors, pumps and presses
- Bridge bearings
- Mechanical joint elements in adjacent road, bridge, or deck structures
- Crane tracks

FEATURES

- Rapid early-strength development
- Ready-to-mix, pre-batched units
- Moisture-tolerant
- Very low shrinkage
- Resistant to corrosion
- Resistant to many chemicals
- Very good resistance to impact
- Good resistance to stress
- High compressive strength
- Good resistance to vibration
- Low coefficient of thermal expansion
- Pumpable
- Vapour barrier when cured

CERTIFICATES AND TEST REPORTS

- CE marking and declaration of performance based on EN 1504-6:2004 Products and systems for the protection and repair of concrete structures — Anchoring reinforcing steel bar

PRODUCT INFORMATION

Composition	Epoxy resin	
Packaging	Pre-batched unit (Part A+B+C)	12 kg
		Pallets of 252 kg
	Bulk packaging (Part A+B+C, not pre-batched)	144 kg
	Part C	Bag of 24 kg units Pallets of 960 kg
	Refer to the current price list for available packaging variations.	
Colour	Concrete grey	
Shelf life	24 months from date of production	
Storage conditions	The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect the Product from direct sunlight. Always refer to the packaging.	
Density	Part A+B+C mixed	2130 kg/m ³

TECHNICAL INFORMATION

Compressive strength	TEST SPECIMEN SIZE: 50 MM × 50 MM × 50 MM				(ASTM C579)
	Curing time	+23 °C curing temperature	+30 °C curing temperature	+40 °C curing temperature	
	1 day	74 N/mm ²	80 N/mm ²	89 N/mm ²	
	3 days	80 N/mm ²	87 N/mm ²	94 N/mm ²	
	7 days	95 N/mm ²	96 N/mm ²	99 N/mm ²	
	28 days	100 N/mm ²	103 N/mm ²	105 N/mm ²	
	TEST SPECIMEN SIZE: 12.7 MM × 12.7 MM × 25.4 MM				
	Curing time	+23 °C curing temperature	+30 °C curing temperature	+40 °C curing temperature	
	6 hours	-	-	20 N/mm ²	
	12 hours	32 N/mm ²	46 N/mm ²	55 N/mm ²	
	1 day	88 N/mm ²	57 N/mm ²	82 N/mm ²	
	3 days	78 N/mm ²	82 N/mm ²	88 N/mm ²	
	7 days	82 N/mm ²	86 N/mm ²	90 N/mm ²	
	28 days	86 N/mm ²	90 N/mm ²	94 N/mm ²	
Modulus of elasticity in compression	20 000 N/mm ²				(ASTM D695)
Effective bearing area	> 90 %				(ASTM C1339)
Flexural-strength	37 N/mm ²				(ASTM C580)
	42 N/mm ²				(ISO 178)
	32 N/mm ²				(EN 196-1)
Modulus of elasticity in flexure	15 000 N/mm ²				(ISO 178)
Tensile strength	15 N/mm ²				(ASTM C307)
	18 N/mm ²				(EN ISO 527-2)
	15 N/mm ²				(ASTM D638)
Modulus of elasticity in tension	12 500 N/mm ²				(ASTM C580)
Shrinkage	-0.032 %				(ASTM C531)
	-0.02 %				(DIN 52450)

Creep	at 4.14 N/mm ² (600 psi)	0.9 %	(ASTM C1181)
	and +60 °C		
	at 2.76 N/mm ² (400 psi)	0.11 %	
	and +60 °C		
	API requirements: ≤ 0.5 % at 2.76 N/mm ² load		
Tensile adhesion strength	Slant shear > 36 N/mm ² (concrete failure)		(ASTM C882)
	> 3.5 N/mm ² (concrete failure)		(EN 12188)
	11 N/mm ² (on steel)		(EN 1542)
Coefficient of thermal expansion	-30 °C to +30 °C	$2.1 \times 10^{-5} \text{ 1/K}$	(ASTM C531)
	+24 °C to +100 °C	$3.8 \times 10^{-5} \text{ 1/K}$	
	-20 °C to +60 °C	$2.6 \times 10^{-5} \text{ 1/K}$	(EN 1770)
Chemical resistance	Resistant to many chemicals. Contact Sika Technical Services for specific information.		
Design considerations	Sikadur® resins are designed to have low creep under constant load, but all polymers will creep over time. Therefore, the long-term design load should typically be set at 20–25 % of the failure load. For specific applications, please consult a structural engineer to calculate the appropriate load.		
Heat deflection temperature	Cured for 7 days at +23 °C	+54 °C	(ISO 75-1)
Water absorption	Coefficient W, cured 7 days	0.055 %	(ASTM C413)
Elongation at break	1.6 %		(ASTM D638)
	7 days at +23 °C	0.1 % ± 0.05 %	(ISO 75-1)

APPLICATION INFORMATION

Mixing ratio	STANDARD	
	Part A : Part B : Part C by weight	5 : 1 : 30
	Solid : Liquid by weight	5 : 1
	ADJUSTED MIXING RATIO, DEPENDING ON FLOWABILITY	
	Part A : Part B : Part C by weight	5 : 1 : (27–36)
	Solid : Liquid by weight	(4.5–6) : 1
Layer thickness	Minimum grout depth	10 mm
	Maximum grout depth	150 mm
	Temperature	Maximum layer thickness
	20 °C–30 °C	150 mm
	30 °C–40 °C	100 mm*
	*No reduction of fillers; apply only with mixing ratio A : B : C = 5 : 1 : (30–36)	
	Peak exotherm	Tested at + 23 °C
Material temperature	Maximum	+30 °C
	Minimum	+20 °C
Ambient air temperature	Maximum	+40 °C
	Minimum	+20 °C
Dew point	Beware of condensation. Substrate temperature during application must be at least +3 °C above dew point.	
Substrate temperature	Maximum	+40 °C
	Minimum	+20 °C

Substrate moisture content	Substrate	Test method	Moisture content
	Cementitious substrates	Calcium carbide method (CM method)	≤ 4 %

Pot Life	Temperature	Time
	+23 °C	100–110 minutes
	+40 °C	45–50 minutes

200 g, adiabatic testing, mixing ratio 5 : 1 : 30

Note: Pot life begins when the resin and hardener are mixed.

Note: Pot life is shorter at high temperatures and longer at low temperatures.

Note: The greater the quantity of product mixed, the shorter the pot life.

Note: Apply the following methods for obtaining a longer pot life at high temperatures:

1. Divide the mixed product into smaller quantities.
2. Cool down parts A and B before mixing. Do not cool below +5 °C.

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.

FURTHER DOCUMENTATION

Refer to the following method statement: Sikadur®-42 Epoxy resin based grout.
Contact Sika Technical Services for specific bolt grouting applications and for control joint spacing on large base plate grouting projects.

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 PREPARATION

IMPORTANT

Reduced adhesion due to surface contamination

Surface contaminants such as dust and loose material, including the contaminants generated during substrate preparation, can reduce the Product's performance.

1. Before applying the Product, thoroughly clean all substrate surfaces using vacuum or dust removal equipment.

IMPORTANT

Damage to the substrate or equipment due to vibration

For optimum results when grouting critical equipment, follow the surface preparation requirements of the latest edition of the American Petroleum Institute Recommended Practice 686 "Machinery Installation and Installation Design", Chapter 5.

Verify the substrate strength to ensure design

strengths are achieved.

CONCRETE

Substrates must be sound, clean, dry or matt damp but free of standing water. Substrates must be free of contaminants such as ice, dirt, oil, grease, coatings, laitance, efflorescence, surface treatments and loose friable material.

Concrete must be at least 28 days old.

Suitable techniques for substrate preparation include the following:

- Hand-chiselling
 - Abrasive blast cleaning
 - Grinding
 - Light scabbling
 - Needle gunning
 - Bush hammering
 - High-pressure water blasting
1. Prepare the substrate mechanically using a suitable technique.
 2. Remove any debris from pockets or holes for structural fixings.

The substrate has an open-textured, gripping surface profile.

STEEL

Surfaces must be cleaned and prepared thoroughly to a quality standard equivalent to SA 2.5 (bright metal) with a surface profile to satisfy the necessary tensile adhesion strength requirement.

Surfaces must be sound, clean, and free of contaminants such as dirt, oil, grease, coatings, rust and loose friable material.

For best results, the substrate must be dry.

1. IMPORTANT Avoid dew point conditions. Prepare the substrate mechanically using a suitable technique such as blast-cleaning or grinding.
2. Remove any debris, for example by vacuum equipment.
3. Apply the Product immediately to prevent re-oxidizing and rust formation.

PRODUCT DATA SHEET

Sikadur®-42 MP Slow

September 2025, Version 04.01

020202010010000022

MIXING

IMPORTANT

Poor workability and unfavourable handling time due to wrong mixing

1. When using multiple units during application, do not mix the following unit until the previous unit has been used.

IMPORTANT

Change in properties caused by addition of solvents

Solvents can prevent proper curing and change mechanical properties.

1. Do not thin with solvents.

IMPORTANT

Excess heat due to delay in adding Part C

Mixing Part A and Part B causes an exothermic reaction to take place. Excess heat and smoke is generated if there is a delay in adding Part C.

1. Adding Part C helps to reduce the heat from the exothermic reaction because some of the heat is absorbed by the aggregate.
2. Add Part C as soon as Parts A + B are sufficiently mixed.

PRE-BATCHED UNITS

1. **IMPORTANT** Mix full units only. Prior to mixing all parts, mix Part A (resin) and Part B (hardener) briefly using a mixing spindle attached to a slow speed electric mixer (max. 300 rpm).
2. Add Part B (hardener) to Part A.
3. Mix Parts A + B continuously for at least 3 minutes until a uniformly coloured mix with a smooth consistency has been achieved.
4. Pour the mixture into a suitable mixing container.
5. While mixing Parts A + B, gradually add Part C (aggregate).
6. **IMPORTANT** Do not mix excessively. Mix until a uniform mix is achieved.

BULK PACKAGING

1. Prior to mixing all parts, mix Part A (resin) and Part B (hardener) briefly using a mixing spindle attached to a slow speed electric mixer (max. 300 rpm).
2. Add Parts A + B in the correct proportions into a mixing container.
3. Mix Parts A + B continuously for at least 3 minutes until a uniformly coloured mix with a smooth consistency has been achieved.
4. While mixing Parts A + B, gradually add the correct proportion of Part C (aggregate).
5. **IMPORTANT** Do not mix excessively. Mix until a uniform mix is achieved.

APPLICATION

IMPORTANT

Risk of damage due to sudden temperature changes during curing

Product performance may be impaired if it is subjected to sudden temperature changes, especially during the early curing stages.

The Product is a vapour barrier when cured

Note:

Store the Product in an area with an ambient temperature between +20 °C and +30 °C for a minimum of 48 hours before using.

FORMWORK

1. Select suitable formwork (permanent or temporary) to contain the grout around areas such as base plates.
2. Ensure all edges and joints of the formwork are sealed tightly to prevent leakage or seepage of the grout.
3. Coat all surfaces of the formwork that will come into contact with the grout with polyethylene film or wax to prevent adhesion.
4. Arrange the formwork to maintain a liquid head of more than 100 mm to facilitate the placement of the grout.
5. Attach a grout box with an inclined trough to the formwork to enhance grout flow and minimize air encapsulation.

GROUTING WITH FORMWORK

1. **IMPORTANT** Maintain a 100 mm grout head to avoid trapping air. Ensure continuous grout flow during the complete grouting operation. Pour the mixed grout into the formwork from one or two sides only.
2. Place sufficient grout in the formwork to rise slightly above the underside (3 mm) of the base plate.
3. Where the void beneath the base plate is greater than the maximum allowable grout thickness (see Layer thickness), place the grout in successive lifts once the preceding lift has hardened and cooled.
4. Keep the last lift to maximum 50 mm.
5. Once hardened, check the adhesion by tapping with a hammer.

CLEANING OF EQUIPMENT

Sweep excess grout into appropriate containers for disposal before it has hardened. Dispose of in accordance with applicable local regulations.

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

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 exact product data and uses.

PRODUCT DATA SHEET

Sikadur®-42 MP Slow

September 2025, Version 04.01

020202010010000022

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.

SIKA MANUFACTURING NIGERIA LIMITED

10, Western Industrial Avenue, Isheri
Riverview Estate
Lagos - Ibadan Expressway, Ogun State
NIGERIA
Web: nga.sika.com

PRODUCT DATA SHEET

Sikadur®-42 MP Slow
September 2025, Version 04.01
020202010010000022

Sikadur-42MPSlow-en-NG-(09-2025)-4-1.pdf

