

Sikadur® -42MP

Epoxy Resin Castable Grout

Product Description	Sikadur® -42MP is a solvent-free, 3-component, pourable grout, based on a combination of high strength epoxy resins and specially graded aggregates.
Uses	<p>Sikadur® -42MP is a high strength, shrinkage free, self levelling epoxy grout suitable for:</p> <ul style="list-style-type: none"> ■ Bridge bearing plates. ■ Machine bases. ■ Mechanical joints (i.e. road/bridge/deck types, etc.) Sleeper-less, direct rail fixing ■ Light rail and permanent way in tunnels ■ Fixing bolts and anchors ■ Tire less crane rails, rails in tunnels and on bridges ■ Grouting under equipment, including heavy impact and vibratory machinery, reciprocating engines, compressors, pumps, presses, etc. ■ And to fill cavities in concrete and levelling layer for pile cap and pile heads.
Advantages	<p>Sikadur® -42MP is available in two different grades of reactivity (normal and long pot life), depending on climatic conditions. Other benefits are:</p> <ul style="list-style-type: none"> ■ Solvent-free. ■ Good flow characteristics even in thin layers. ■ Rapid hardening according to grade used. ■ Suitable for both, dry and damp substrates. ■ Shrinkage-free hardening. ■ Curing is not affected by high humidity. ■ High mechanical strengths. ■ Tough vibration-resistant material.
Product Data	
Colour	<p>Grey (Mix)</p> <p>Comp. (A): yellowish,</p> <p>Comp. (B): brownish,</p> <p>Comp. (C): grey.</p>
Packaging	L.P. type: 37.50 kg (A+B+C).
Storage	Store at temperatures between + 5°C and +30°C, in dry conditions
Shelf Life	12 months from date of production if stored properly in original unopened packing in dry conditions, away from heat, moisture and direct sunlight.
Technical Data	
Density (20°C)	<p>Comp. (A): 1.1 kg/l</p> <p>Comp. (B): 1.0 kg/l</p> <p>Comp. (C): 1.7 kg/l (bulk density)</p> <p>Comp. (A+B+C): 2.0 kg/l (mixed mortar)</p>
Coefficient of thermal Expansion	<p>43×10^{-6}</p> <p>(Temperature range -20°C to + 60°C).</p>



Mechanical Strengths (7days @ 20°C) Full curing 14 days	■ Compressive strength	70 - 80 N/mm ²	(ASTM C308& C-579)
	■ Flexural strength	30 - 35 N/mm ²	(ASTM C-580)
	■ Tensile strength	10 - 15 N/mm ²	(ASTM C-307)
	■ Bond strength to concrete	~3.5 N/mm ² (Concrete Failure)	
	■ Bond strength to Steel	10 - 11 N/mm ²	(DIN 53232)

Modulus of elasticity (static)	12'500 N/mm ²	(ASTM C580)
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Application

Mixing Ratio Comp. A : B : C = 2:1:15 parts by weight.

Layer Thickness	Minimum grout depth: 10 mm Maximum grout depth: 150 mm		
	Temperature	20°-25°C	25°-30°C
	Layer Thickness max.	150mm	100mm

* no reduction of fillers; apply only with Mixing Ratio (A+B) : C = 1 : 5

Surface preparation All surfaces must be sound clean, free from oil, grease, laitance, old coatings, frost, standing water and all loosely adhering particles. For good bond sand, waterblast, grind or scabble substrates.

All anchor pockets or sleeves must be void of water. Sandblast metal base plates to a commercial white finish (SP-10) for maximum adhesion. Apply grout immediately to prevent re-oxidizing.

Forming - The consistency of the epoxy grout system requires the use of forms to contain the material around the base plates. In order to prevent leakage or seepage, all forms must be sealed. Apply polyethylene film or wax to all forms to prevent adhesion of the grout. Prepare form work 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's flowability and minimize air encapsulation.

Priming Primer is not required

Mixing Mix components (A+B) together for at least one minute with a slow speed electric drill (max. 250 R.P.M.). Then add aggregate (component C) and continue mixing for approx. 3 minutes until a homogeneous, flowable mortar is achieved.

Pot life +20°C 45 minutes & +30°C 35 minutes
The pot life begins when the resin and hardener are mixed. It is shorter at high temperatures and longer at low temperatures. The greater the quantity mixed, the shorter the potlife.

Application When grouting under bearing plates, ensure there is sufficient pressure to maintain movement of the grout. Air must be allowed to escape. For large volumes, apply in more than one layer, ensuring that the previous layers have hardened and cooled.

Cleaning Clean all tools and equipment immediately after use with Sika Colma Cleaner®.

Material Temperature Sikadur® -42MP must be applied at temperatures between +5°C and +30°C Condition the material by also storing at this temperature for 48 hours before use

Transport Comp. A/C: Non-hazardous.
Comp. B: 8/66 c).

Safety precautions Product may cause skin irritation. Wear gloves and goggles.
In contact with eyes or mucous membrane, flush immediately with plenty of clean warm water and seek medical attention without delay.

Toxicity Comp. A/B: Class. 4, under the relevant Swiss health and safety codes.
Comp. C: Non-toxic under the relevant Swiss health and safety codes.



Construction

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.



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