

Sikadur®-42 HES

Castable Epoxy Resin Based Grout

Product Description Sikadur®-42 HES is a solvent-free, self-levelling, three-component epoxy grout, based on a combination of epoxy resins and specially selected high strength fillers.

Uses Sikadur®-42 HES can be used as follows

- Structural bonding of
- Starter bars,
 - Anchors,
 - Supports ,
 - Braces and tie bars
- Grouting of
- Crash barrier posts
 - Bearing plates
 - Machine bases
 - Mechanical bridge joints
 - Bridge bearings
- Tie-less rail grouting
- Crane rails
 - In tunnels
 - On bridges

Characteristics / Advantages Sikadur®-42 HES is an extremely versatile product that offers many advantages to the user:

- Solvent free
- Excellent flowability
- No shrinkage
- Fast through hardening
- High mechanical strengths

Product Data

Form

Colours Mixed: Grey

Packaging 84 kg units (A+B+C), other packaging can be considered based on order quantity

Storage

Storage Conditions / Shelf-Life 12 months from date of production if stored properly in original unopened, sealed and undamaged packaging in dry conditions at temperatures between +5°C and +35°C. Protect from direct sunlight



Technical Data

Chemical Base	Epoxy resin		
Mixing ratio	A : B : C = 6 : 1 : (28 -35) parts by weight Addition of Component C according to climate conditions and desired application behaviour.		
Density	Mixed = 2.00 kg/l (Approx)		
Layer Thickness	Layer thickness: Minimum-12 mm, Maximum-50 mm		
Pot life		2 kg Mix	10 kg Mix
	30°C	~ 20 min.	~ 15 min
	20°C	~ 40 min.	~ 30 min
	10°C	~ 75 min.	~ 60 min
	5°C	~ 120 min.	~ 90 min
Full Cure	Approximate 14 days at 25°C		

Mechanical / Physical Properties

Strengths (Typical values)	Compressive strengths , N/mm²				
		1 day	3 days	7 days	14 days
	5°C	-	~100	~110	~130
	25°C	~90	~100	~120	~130
	Flexural Strengths , N/mm²				
	1 day	3 days	7 days	14 days	
5°C	-	~25	~27	~29	
25°C	~20	~25	~27	~30	

Adhesive –tensile strength after 14 days at 25°C according to DIN 53232

On concrete : ~ 4 N/mm² (concrete failure)

On steel : ~ 15 -20 N/mm²

Modulus of elasticity (static)	~ 18,000 N/mm ²
Coefficient of thermal expansion	~ 18 x 10 ⁻⁶ per °K

System Information

Substrate Preparation	All surfaces must be clean, free from frost, standing water and all loosely adhering particles. Cement laitance must be mechanically removed. Concrete must be at least 3 weeks old, depending on climate. Metal surfaces (steel and iron) should be free from scale, rust, oil and grease.
------------------------------	---

Application Conditions / Limitations

Substrate Temperature	+8°C min. / +35°C max.
Application Temperature	+8°C min. / +35°C max. Store material at temperature of about 20 -25°C (room temperature) for at least 24 hours prior to its use.
Material Temperature	Sikadur [®] -42 HES must be applied at temperatures between +5°C and +35°C
Substrate Humidity	Max. 4% .
Dew Point	Beware of condensation! Ambient temperature during application must be at least 3°C above dew point.

Mixing Instructions

Mixing Pour all of component B into component A container. Mix with basket type stirrer connected to an electric mixer at low speed (max. 250 rpm) until the originally turbid liquid becomes completely clear. Avoid entraining air. Pour mixture into suitable mixing vessel and add component C. Stir for 3 minutes with electric hand mixer (max. 250 rpm) until mortar of homogeneous consistency is obtained.

Application Method / Tools Prior to application, rest mix for a short time to allow entrained air to escape. Pour mortar into prepared opening (hopper) and maintain enough static pressure. Ensure that entrapped air can easily escape.

Large volumes have to be poured in layers. Pour next layer as soon as the previously applied layer has hardened and started to cool.

Opened containers (Comp A & B) must be closed immediately after use.

Cleaning of Tools Clean all tools and application equipment with Sika® Colma Cleaner immediately after use. Hardened/cured material can only be mechanically removed.

Notes 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

Local Restrictions Please note that as a result of specific local regulations the performance of this product may vary from country to country

Health and Safety Information

Protective Measures Accidental splashes to the skin must be washed off with water and soap.

Accidental splashes to the eyes or mucous membrane must be rinsed with clean warm water. Seek medical attention without delay.

Skin barrier cream, safety goggles and rubber gloves are recommended. To avoid rare allergic reactions, use of butyl protective gloves. Change soiled work clothes and wash hands before breaks and after finishing work. When uncured Sikadur®-42 HES are water-pollutants and must not be discharged into drains, waterways or the ground.

Local regulations as well as health and safety advice on packaging labels must be observed.

Ecology In a liquid state, components A+B contaminate water. Do not dispose of into water or soil but according to local regulations

Transportation Class Comp. C : Non-hazardous.
Comp. B:: 8/53 c. Comp. A, 9/11 c

Important Notes Residues of material must be removed according to local regulations. Fully cured material can be disposed of as household waste under agreement with the responsible local authorities.

Detailed health and safety information as well as detailed precautionary measures e.g. physical, toxicological and ecological data can be obtained from the safety data sheet.

Toxicity Comp. A+B: Class 4 under the relevant Swiss Health and Safety Codes. Observe warnings on packing

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 Gulf B.S.C (c)
Bldg.925, Road 115, Sitra Area 601.
P.O.Box 15776
Adliya, Kingdom of Bahrain
Tel: ++973 17 738188,
Fax : ++973 17732 476
Email; sika.gulf@bh.sika.com
Web : <http://www.sika.com.bh>

