

Icosit[®] KC 340/45

2-pack Polyurethane grout for rail fixing

Product- description

Icosit KC 340/45 is a flexible two-component polymer grout based on polyurethane resin, hand and machine applicable.

Uses

■ Icosit KC 340/45 is designed as load-bearing, flexible levelling grout for elastic fixing of grooved or T-rails on concrete slabs, steel bridge decks and in tunnels. Particularly suitable for embedded (floating) rail designs

Characteristics / advantages

- Reduces vibration
- Excellent electrical insulation against stray currents
- Levels out tolerances
- Suitable as shear-resistant adhesive for rail fixing
- Insensitive to moisture
- Elastic (Shore A 50) - compressible
- Long life expectance

Product Data

Colour shade

Light grey

Packaging

component A	9,1 kg pail	160 kg drum
component B	0,9 kg tin	16 kg pail
A + B	10 kg (for manual application)	176 kg (for machine application)

Conditions of storage / shelf life

12 months from date of manufacture in cool and dry storage in unopened original containers, protected from direct sun radiation, at temperatures between +10°C and +25°C. Protect from frost.



Technical Data

Chemical base 2-component pourable polyurethane grout

Density

component A	~ 0,87 kg/litre	(ISO 2811-1)
component B	~ 1.23 kg/litre	(ISO 2811-1)
A + B	~ 0,90 kg/litre	(ISO 1183-1)

Viscosity

component A	~ 5,50 Pa s	with Z 3 DIN, 20°C
component B	~ 0,26 Pa s	with Z 3 DIN, 20°C

Layer thickness min. 15 mm

max. 60 mm

Temperature resistance from -40°C to +80°C (temporary up to +150°C)

Tensile strength 1,7 N/mm² (ISO 527)

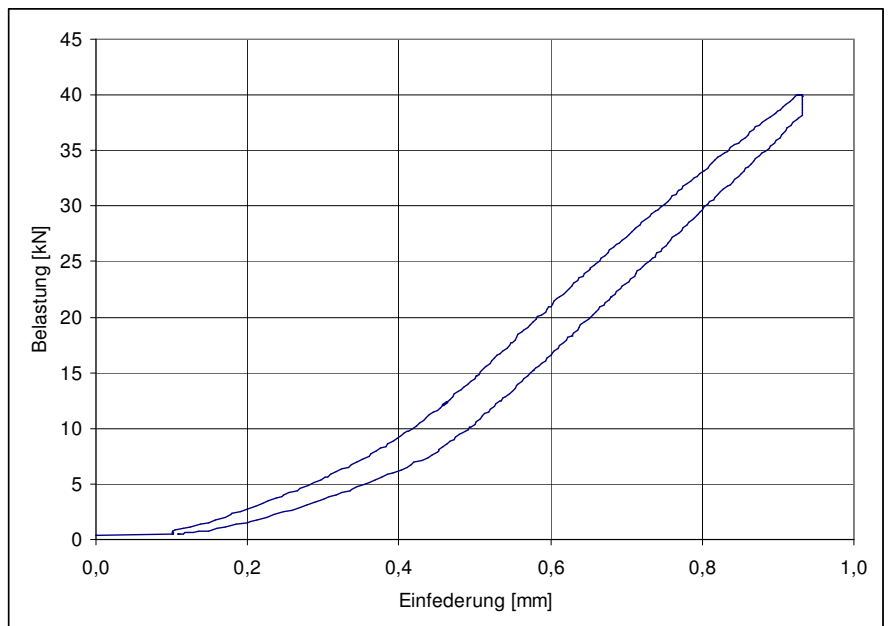
Shore A hardness 50 ± 5 (after 28 days) (ISO 868)

Elongation at break ~ 120% (ISO 527)

Specific electrical resistance ~ 2,85 x 10⁹ Ω m
DIN VDE 0100-610
and DIN IEC 93

Spring diagram

DIN 45673



“Belastung” = load; “Einfederung” = deflection

Static stiffness determined analogous to DIN 45673-1. Test specimen dimensions 1000 x 180 x 25 mm.

Bedding figure $c = 48$ kN/mm, determined as per the secant method between 8 and 32 kN.

Shore hardness serves for material identification and control of curing progress on site.

Chemical resistance	<p><i>Long-term resistant against:</i></p> <ul style="list-style-type: none"> - Water - Most detergents - Sea water <p><i>Temporary resistant against:</i></p> <ul style="list-style-type: none"> - Mineral oils, Diesel fuel jet fuel A1 <p><i>Not or only short-term resistant against:</i></p> <ul style="list-style-type: none"> - Organic solvents (ester, ketone , aromates) and alcohol - Concentrated acids and lyes <p>For more details contact our technical service centre</p>
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System Information

Consumption	0,9 kg per litre of volume to be sealed
Substrate quality	<p>Substrate must be solid, free from oil, fat, loose and friable particles.</p> <p>Slightly damp substrates are acceptable. Water in liquid form (droplets) must be removed (e.g. by vacuum or compressed air) before pouring Icosit KC 340/45</p>
Substrate preparation	<p>Icosit KC 330 Primer:</p> <p>To improve adhesion, absorbent substrates (concrete) should be primed. Waiting time between application of Icosit KC 330 Primer and pouring of Icosit KC 340/45 min. 1 hour and max. 3 days.</p> <p>SikaCor 277 (formerly Icosit 277):</p> <p>If a waiting time of more than 3 days is to be expected between priming and pouring Icosit KC 340/45 or if a solvent-free primer or a particularly efficient corrosion protection is required, SikaCor 277 shall be used for priming. The freshly applied coating should immediately be blinded (broadcasted) with quartz sand 0,4 – 0,7 mm granulometry. Waiting time between application of SikaCor 277 and pouring of Icosit KC 340/45 minimum 24 hours.</p> <p>See individual data sheets for these products.</p>
Material temperature	Before application preferably approx. +15°C
Substrate temperature	+5°C min. / +35°C max.
Ambient temperature	+5°C min. / +35°C max.
Substrate humidity	Dry to mat-damp
relative air humidity	90% max.

Application hints

Application methods/ tools	<p>Mixing proportion component A : component B = 100 : 10 (parts by weight)</p> <p>Icosit KC 340/45 is supplied in pre-weighed composite units consisting of A + B component. Component A must be stirred up thoroughly before being mixed with component B.</p> <p>Whilst mixing 10 kg units, observe the following instructions:</p> <ol style="list-style-type: none"> 1. electric or pneumatic stirrer, approx. 600-800 r.p.m. 2. mixing time approx. 60 to 80 seconds 3. make sure to properly reach walls and bottom of container. <p>For 10 kg units, we recommend mixer CX 40 stirrer WK 140 of Messrs. Collomix or mixer MXP 1000 EQ with stirrer HS 2, 140 x 160, of Messrs. PROTOOL</p> <p>For stirring up component A in 160 kg drums, we recommend gear stirrer GRS 300/1,5, equipped with three blades Ø 300 mm of Messrs. Geppert Rührtechnik GmbH. Gear stirrer has to be mounted on a drum lid which replaces the original lid during stirring. Stirring time approx. 5 minutes.</p> <p>Material is suitable for application with special 2-pack casting machines. Mixing proportion must be carefully observed and monitored. Component A has to be stirred up at regular intervals. Observe instructions of use of equipment supplier.</p>
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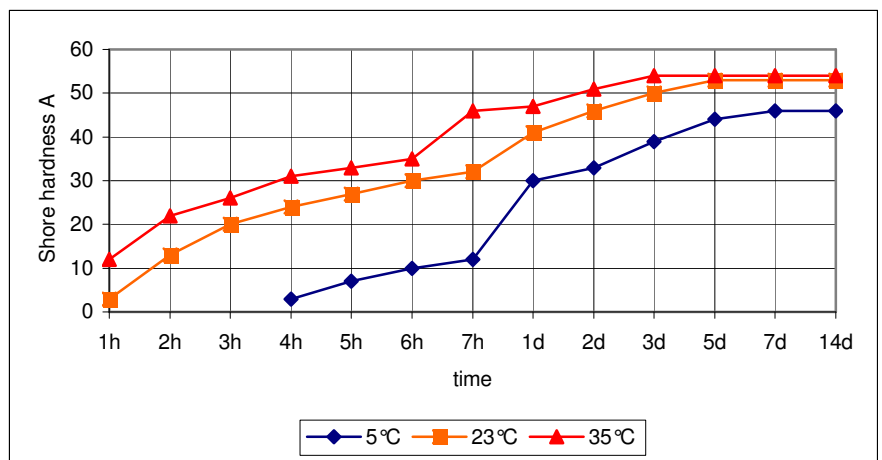
Cleaning of tools Mixing and application tools must be cleaned at regular intervals and immediately after use with Sika Cleaner 5. Cured material can only be removed mechanically.

Potlife Approx. 10 minutes at + 20 °C
After this time, the mixture becomes unserviceable.
Do not add any solvents!
Higher temperatures will shorten potlife!

Waiting time Tack-free after approx. 2 h at + 20 °C/68 °F
Traffickable after approx. 24 h at + 20 °C/68 °F

Notes on application For easier application, we recommend a material temperature of +15 °C.
Undersealing layer thickness should be minimum 15 mm and maximum 60 mm.
To achieve maximum adhesion on concrete, loose particles and cement laitance must be removed mechanically, e.g. by blastcleaning or scabbling.
Substrate may be damp. Droplets of water have to be removed before application of Icosit KC 340/45, e.g. by compressed air.
Use of appropriate Sika Primers will improve adhesion considerably.

Curing progress



Value Base 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. Please consult the local Product Data Sheet for the exact description of the application fields.

Health and Safety information

Protective measures

Components A + B of Icosit KC 340/45 are solvent-free. Component A falls under UN No. 3082, class 9 of the IMDG/IATA DGR transport regulations and is classified as "irritating" Component B is classified as "harmful". Local regulations as well as health and safety advice on containers must be observed.

Component B of Icosit KC 340/45 contains Isocyanate.

Isocyanate containing material may cause irritation and – under permanent exposure – sensitization of skin, eyes and respiratory tract and may also lead to allergic reactions. Allergic persons and persons tending to illness of respiratory tract should not come into contact with this kind of materials. Therefore avoid direct contact with the liquid components (chemical resistant gloves/goggles/clothing) to prevent direct contact with skin and eyes. Use only in presence of adequate general and local exhaust ventilation to prevent concentration of vapours. Use properly fitted NIOSH respirator if ventilation is poor. Cured product (as combined with companion component) is chemically inert but very difficult to remove from skin or any objects to which it adheres. Cured product must be mechanically removed. In case of spill, avoid direct contact. Wearing protective equipment, contain and collect spill with absorbent material and place in suitable container. Ventilate enclosed area. Do not dispose of in sewer or drain. Dispose of spilled or excess product and container in accordance with applicable federal, state and local environmental regulations.

Prior to as well as after application use fat-free barrier cream. After completion of work clean skin with plenty of soap and water and again protect with fat-containing barrier cream.

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

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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