BUILDING TRUST

PRODUCT DATA SHEET

Icosit® KC 340/65

2-part polyurethane grout for continuous embedded tracks (shore A 70)

DESCRIPTION

Icosit® KC 340/65 is a flexible 2-part polyurethane polymer resin grout that can be applied manually or by machine. It is designed as a vibration absorbing, load-bearing, flexible grout for fixing grooved or T–rails onto concrete slabs, steel bridge decks and tunnel invert slabs. Particularly suitable for embedded (floating) rail designs.
Suitable for use in hot and tropical climatic conditions.

USES

Icosit® KC 340/65 may only be used by experienced professionals.

As a noise and vibration reducing grout for continuous embedded grooved or T–rails and road crossing applications.

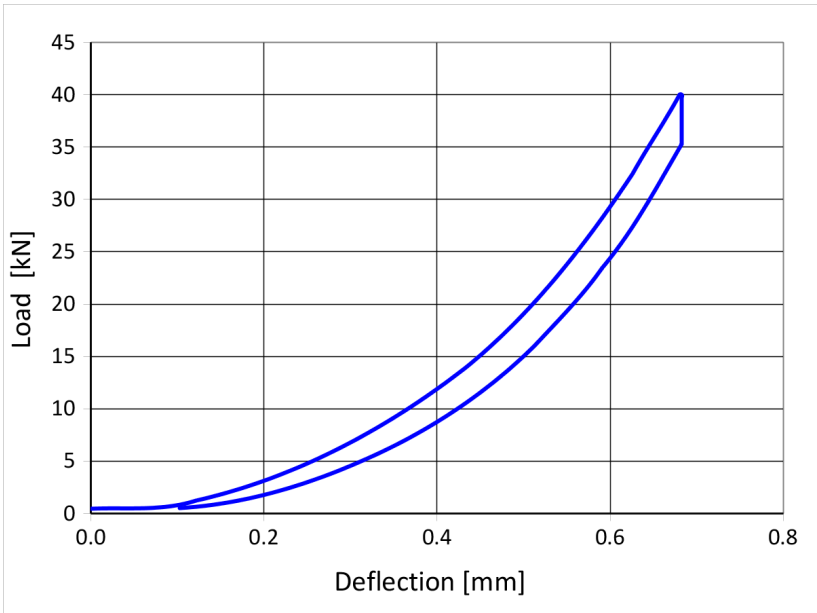
CHARACTERISTICS / ADVANTAGES

- Heavy axle loads and standard deflection
- Noise & vibration suppression
- More uniform load distribution into substructure
- Watertight undersealing
- Flexible, elastic (shore A 70)
- Damping, compressible
- Good electrical insulation against stray currents
- Excellent adhesion on various substrates
- Levels out tolerances
- Suitable as a powerful, shear-resistant adhesive
- Absorbs dynamic stresses and prolongs the life of concrete substructure
- Insensitive to moisture
- Long durability, less maintenance

PRODUCT INFORMATION

Composition	2-part polyurethane		
Packaging		**Manual application**	
	Part A	8,7 kg container	
	Part B	1,3 kg container	
	A + B	10 kg	
Colour	Grey		
Shelf life	12 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 +10 °C and +25 °C. Always refer to packaging.		
Density	Part A	~0,9 kg/l	(ISO 2811-1)
	Part B	~1,2 kg/l	(ISO 2811-1)
	A + B	~0,9 kg/l	(ISO 1183-1)

TECHNICAL INFORMATION

Shore A hardness	70 ± 5 (after 28 days) Shore hardness assists with material identification and assessing the curing progress on site.	(ISO 868)
Compressive stiffness	**Load-Deflection Diagram**  Static stiffness determined according to DIN 45673-1. Test specimen dimensions 1000 × 180 × 25 mm Spring index k_{stat} = 63 kN/mm (± 10 %), determined as per the secant method between 4 and 32 kN.	
Tensile strength	~3,0 N/mm²	(ISO 527)
Tensile strain at break	~165 %	(ISO 527)
Chemical resistance	**Long-term resistant against:** ▪ Water ▪ Most detergents ▪ Sea water **Temporary resistant against:** ▪ Mineral oils, diesel fuel **Short-term or no resistance against:** ▪ Organic solvents (ester, ketone , aromates) and alcohol ▪ Concentrated acids and lyes Contact Sika Technical Services for specific information.	
Service temperature	-40 °C minimum / +80 °C maximum short term +150 °C maximum	
Electrical resistivity	~5,48 × 10^9 Ω·m	(DIN VDE 0100-610 and DIN IEC 93)

SYSTEMS

System structure	System products: ▪ Icosit® KC 340/65 ▪ Icosit® KC 330 Primer ▪ SikaCor®-299 Airless (Steel deck / baseplate /rail coating)

APPLICATION INFORMATION

Mixing ratio	Part A : Part B = 100 : 15 (parts by weight)
Consumption	~0,9 kg per litre of volume to be sealed
Layer thickness	Minimum 15 mm Maximum 60 mm
Product temperature	Condition product parts before application preferably at ~+15 °C to assist with flow and curing speed
Ambient air temperature	+5 °C min. / +35 °C max.
Relative air humidity	90 % max.
Substrate temperature	+5 °C min. / +35 °C max
Substrate moisture content	Dry to matt damp
Pot Life	~8 minutes at +20 °C After this time, the mixture becomes unusable. Higher temperatures will shorten pot life.
Curing time	Tack-free ~2 hours at +20 °C Trafficable ~12 hours at +20 °C

Curing rate

Shore A	Curing Temperature			
Curing Time	**0 °C**	**5 °C**	**23 °C**	**35 °C**
1 h	-	-	~30	~35
2 h	-	~20	~40	~45
4 h	~20	~30	~45	~50
7 h	~35	~40	~50	~55
1 d	~55	~55	~60	~65
3 d	~60	~60	~65	~65
7 d	~65	~65	~65	~65
14 d	~70	~65	~65	~65

Waiting time to overcoating

On primer or coating at +20 °C

	Minimum	Maximum
Icosit® KC 330 Primer	1 hours	3 days
SikaCor®-299 Airless	24 hours	7 days

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 INFORMATION

- Sika Method Statement: Icosit® KC 340/65_Sika GCC

IMPORTANT CONSIDERATIONS

- To achieve the optimum flow performance, condition the material to a temperature of +15 °C before application.
- Undersealing layer thickness must be a 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 blast cleaning or scabbling.
- Use of appropriate Sika Primers will improve adhesion and durability.
- Do not add any solvents to the product.
- Standing water must be removed (e.g. by vacuum extraction or oil free compressed air) before pouring Icosit® KC 340/65.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Substrate must be sound, free from oil, grease, loose and friable particles.
Slightly damp substrates are acceptable. Standing water must be removed (e.g. by vacuum extraction or oil free compressed air) before pouring Icosit® KC 340/65.

SUBSTRATE PREPARATION

To improve adhesion, apply Icosit® KC 330 Primer as a primer on absorbent substrates (concrete).
For additional corrosion protection, use SikaCor®-299 Airless and Icosit KC 330 Primer in combination to coat the steel surfaces.
Immediately blind (broadcast) the freshly applied coated surfaces with quartz sand (0,4–0,7 mm granulometry).
Always comply with the waiting time limits between application of SikaCor®-299 Airless, Icosit KC 330 Primer and pouring of Icosit® KC 340/65.
Refer to the individual Product Data Sheets for more information.
Mature concrete substrate (min 14 days old): substrate strength tested using the "pull-off" method should be at least 1.5 MPa; concrete with no visible traces of moisture and no darkening caused by moisture. The concrete substrates must be prepared mechanically using suitable abrasive blast cleaning or planing / scarifying equipment to remove cement laitance and achieve an open textured gripping surface. High spots can be removed by grinding.
Steel substrates must be prepared mechanically using suitable abrasive blast cleaning to remove all corrosion products and achieve a bright metal finish. All dust, loose and friable material must be completely removed from all surfaces before application of the product and associated system products, preferably by vacuum extraction equipment.

MIXING

Icosit® KC 340/65 is supplied in pre-weighed composite units consisting of parts A + B. Part A must be stirred thoroughly before being mixed with part B.

10 kg units
The following mixing instructions must be carried out:
- Use an electric or pneumatic mixer with basket type stirrer, diameter 120–140 mm, speed ~600–800 rpm.
- Mixing time ~60–80 seconds
- Ensure material is mixed from the container walls and the base by the stirrer during mixing.

APPLICATION METHOD / TOOLS

For detailed application instructions, reference must be made to further documentation, such as relevant method statement, application manual and installation or working instructions.
Material is suitable for application by pouring or with special 2-part casting machines. Correct mix ratio must be carried out. Part A must be stirred at regular intervals. Reference must be made to equipment supplier's instruction manual.

CLEANING OF EQUIPMENT

Mixing and application tools must be cleaned at regular intervals and immediately after use with Sika® Colma Cleaner. 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.

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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