

# Icosit® KC 220/60 TX

2-pack, Epoxy binder

Construction

## Product Description

Icosit® KC 220/60 TX is 2-component epoxy binder of low viscosity for a multitude of uses in the construction industry.

## Uses

- Icosit® KC 220/60 TX is particularly suited for fixing anchor bolts of rail fixing systems e.g. on bridges, in tunnels, train washing installations, maintenance workshops, turning tables, crane tracks. System-tested and approved by DB (German Railways) and a number of other European Railway Authorities.
- Icosit® KC 220/60 TX is furthermore designed as heavy-duty, load-bearing, pourable levelling grout for undersealing rail baseplates, bridge bearings and machine foundations.

## Characteristics / Advantages

- Excellent adhesion on concrete, metals and various coatings.
- High mechanical resistance.
- Bonding bridge between old concrete and freshly poured concrete/cement mortar.
- May be used as pourable or sag-resistant epoxy mortar, depending on the degree of bulking with sand.
- Pressure and wear-resistant.

## Product Data

### Appearance / Colours

Resin component A:	Liquid, yellowish
Hardener component B:	Liquid, beige

### Packaging

Component A:	3.6 kg pail
Component B:	4.4 kg pail
Part A + B:	8 kg

### Conditions of storage / Shelf-Life

12 months from date of production if stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +10 °C and +25 °C.

## Technical Data

### Chemical base

2-component epoxy binder

### Density

Component A:	ca. 1.20 kg/ltr.	ISO 2811-1
Component B:	ca. 1.60 kg/ltr.	ISO 2811-1
Part A + B:	ca. 1.40 kg/ltr.	ISO 2811-1

**Temperature Resistance** From - 40 °C up to + 60 °C (- 40 °F to 140 °F)

**Compressive Strength**

Mixed with quartz sand 0.4 mm – 0.7 mm; 1 : 1 p.b.w.	90 – 100 N/mm <sup>2</sup>	(DIN EN 196-1)
Mixed with quartz sand 0 – 4 mm; 1 : 6 p.b.w.	40 – 50 N/mm <sup>2</sup>	(DIN EN 196-1)

**Tensile Strength**

Mixed with quartz sand 0.4 mm – 0.7 mm; 1 : 1 p.b.w.	30 – 40 N/mm <sup>2</sup>	(DIN EN 196-1)
Mixed with quartz sand 0 – 4 mm; 1 : 6 p.b.w.	10 – 20 N/mm <sup>2</sup>	(DIN EN 196-1)

**System Information**

**Consumption / Dosage**

<b>Bonding bridge</b>	<b>Icosit® KC 220/60 TX</b> component A + B
Bonding bridge between substrate and sag-resistant epoxy grout or old concrete and fresh cement mortar respectively.	0.8 – 1.2 kg/m <sup>2</sup>
Primer on rough, even surfaces.	0.5 – 0.6 kg/m <sup>2</sup>

<b>Icosit® KC 220/60 TX</b>	Mixing proportion with sand p.b.w.	<b>Icosit® KC 220/60 TX</b> (kg)	Quartz sand (kg)
Production of pourable epoxy grout for fixing anchor bolts. Filling of wide joints and undersealing of baseplates with levelling layers from 15 to 80 mm thickness. <b>Quartz sand 0.4 – 0.7 mm granulometry</b> (consumption for 1 litre grout).	1 : 1	0.85	0.85
Production of sag-resistant epoxy mortar for undersealing or joint filling up to 40 mm thickness. <b>Quartz sand 0 – 4 mm granulometry</b> (consumption for 1 litre grout).	1 : 6	0.24	1.44

**Substrate Quality**

Substrate must be solid, free from oil, fat, loose and friable particles.

**Substrate Preparation**

**Concrete:**

To achieve optimum adhesion, loose layers and cement laitance must be removed by grinding, scabbling or ideally blastcleaning, followed by thorough de-dusting.

**Steel:**

Good long-term adhesion on steel is only achieved by blastcleaning to degree Sa 2 ½ as per EN ISO 12 944.

**Application Conditions**

**Material temperature**

Before application preferably approx. + 20 °C (68 °F).

**Substrate temperature**

+ 5 °C min. / + 35 °C max. (41 °F to 95 °F).  
Minimum temperature must be maintained during application and curing e.g. with suitable thermal insulation and/or infrared heating.

**Ambient temperature**

+ 5 °C min. / + 35 °C max. (41 °F to 95 °F).

**Substrate humidity**

Dry

## Application Instructions

### Application Method / Tools

#### Icosit® KC 220/60 TX:

Comp. A : comp. B = 45 : 55 (parts by weight); 53 : 47 (parts by volume)

Produce **Icosit® KC 220** by thorough mixing of both components in the right mixing proportion, followed by adding quartz sand.

For Mixing 8 kg units, an electric or pneumatic stirrer is compulsory (e.g. mixer CX 40 with stirrer WK 140 of Messrs. Collomix or mixer MXP 1000 EQ with stirrer HS 2, 140 x 600, of Messrs. PROTOOL).

1. r.p.m. of stirrer under load 600 – 800 revolutions/minute
2. mixing time 60 – 90 seconds
3. After adding sand, stir until a homogenous consistency is achieved, also covering walls and bottom of pail. For adding sand to produce sag-resistant epoxy mortar, a compulsory (Creteangle) mixer should be used.

### Cleaning of Tools

Mixing and application tools must be cleaned at regular intervals and immediately after use with Cleaner 5. Cured material can only be removed mechanically.

### Potlife

Temperature	5 – 10 °C	+ 20 °C
Time	ca. 90 minutes	ca. 60 minutes

After this time, the mixture becomes unserviceable.

**Do not add any solvents!**

**Higher temperatures will shorten pot life.**

### Curing Time

Temperature	5 – 10 °C	+ 20 °C
Time	ca. 48 hours	ca. 18 hours

### 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

<b>Protective Measures</b>	<p>Components A + B of Icosit KC 220 TX are solvent-free. Component A falls under UN No. 3082, class 9, component B under UN Nr. 1760 "corrosive" of the IMDG/IATA DGR transport regulations.</p> <p>Observe health and safety instructions on containers.</p> <p>Local regulations as well as health and safety advice on containers must be observed. 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.</p> <p>Cured product (as combined with companion component) is chemically inert but 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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
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<b>Notes</b>	<p>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</p>
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<b>Important Notes</b>	<p>Residues of material must be removed according to local regulations. Fully cured material can be disposed of as household waste in agreement with the responsible local authorities.</p> <p>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.</p> <p>The information, and, in particular, the recommendations relating to the application and end-use of <b>Sika</b><sup>®</sup> products, are given in good faith based on <b>Sika</b><sup>®</sup>'s current knowledge and experience of the products when properly stored, handled and applied under normal conditions. 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 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 Product Data Sheet for the product concerned, copies of which will be supplied on request.</p>
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