Construction

Icosit ® KC 220/60 TX

2-pack Epoxy binder

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

Consistency./. colour shade

	Icosit KC 220/60 TX
Resin component A:	Liquid, yellowish
Hardener component B:	liquid, beige

Packaging

	Icosit KC 220/60 TX
Component A	3,6 kg pail
component B	4,4 kg pail
A + B	8 kg

Conditions of storage / shelf life

Icosit KC 220/60 TX 12 months from date of manufacture in cool and dry storage in unopened original containers (opened containers 3 months), protected from direct sun radiation, at temperatures from +10 °C und +25 °C. Protect from frost.

Chemical base 2-component epoxy binder

Density

	Icosit KC 220/60 TX	
Component A	~ 1,2 kg/litre	ISO 2811-1
component B	~ 1,6 kg/litre	ISO 2811-1
A + B	~ 1,4 kg/litre	ISO 1183-1

Temperature resistance from -40 °C to +60 °C (-40 ° to 140 °F)

Compressive strength

	Icosit KC 220/60 TX	
Mixed with quartz sand 0.4–0.7 mm ; 1:1 p.b.w.	90 – 100 N/mm²	(DIN EN 196-1)
Mixed with quartz sand 0 – 4 mm ; 1:6 p.b.w.	40 – 50 N/mm²	(DIN EN 196-1)

Tensile strength

	Icosit KC 220/60 TX	
Mixed with quartz sand 0.4 to 0.7 mm; 1:1 p.b.w.	30 - 40 N/mm²	(DIN EN 196-1)
Mixed with quartz sand 0 – 4 mm ; 1:6 p.b.w.	10 - 20 N/mm²	(DIN EN 196-1)

System information

Application details

Consumption

Bonding bridge	Icosit KC 220/60 TX 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/m²
Primer on rough, even surfaces	0.5 – 0.6 kg/m²

Consumption

Icosit KC 220/60 TX	Mixing proportion with sand p.b.w.	Icosit KC 220/60 TX (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. **Quartz sand 0.4 – 0.7 mm granulometry** (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. **Quartz sand 0 – 4 mm granulometry** (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

Hints for application

Application methods / 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.

Mixing of 1 kg units can be executed manually with a stirrer until a homogenous consistency is achieved.

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.

Pot life

	5 – 10 °C	20 °C
Icosit KC 220/60 TX	~ 90 minutes	~ 60 minutes

After this time, the mixture becomes unserviceable. **Do not add any solvents**!

.**Higher temperatures will shorten pot life.**

Curing time

	5 – 10 °C	20 °C
Icosit KC 220/60 TX	~ 48 hours	~ 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.

Construction

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

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.
Observe health and safety instructions on containers.
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.

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. 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

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