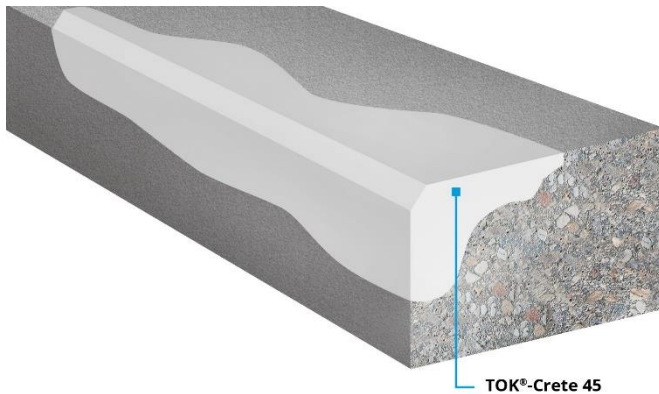


TOK[®]-Crete 45

Product Information



Special Advantages:

- All-weather use.
- Field-tested from -10 °C to +30 °C (+14 °F to +86 °F).
- Can take loads after 45 minutes.
- Ideal for repairing edge damage and potholes.
- Excellent adhesion to the subsurface.

CE	
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40-35988-3313	
EN 1504-3 :2005	
Fast-setting traffic repair mortar	
Compressive strength	class R4
Chloride ion content	≤ 0.05%
Adhesive bond	≥ 2.0 MPa
Restrained shrinkage / expansion	≥ 2.0 MPa
Carbonation resistance	pass
Elastic modulus	≥ 20 GPa
Thermal compatibility	
Freeze-thaw	≥ 2.0 MPa
Skid resistance	class I > 40 units wet tested
Capillary absorption	≤ 0.5 kg*m ⁻² *h ^{-0.5}
Reaction to fire	class A 1
Dangerous substances	complies with 5.4

High early strength repair compound for renovation of concrete surfaces or high-traffic industrial flooring.

For a century now, DENSO Group Germany represents experience, quality and reliability for corrosion prevention and sealing technology. The success of the internationally leading corporation is based on the development of the "DENSO-Tape", which was already patented in 1927 as the first product worldwide for the passive corrosion prevention of pipelines. Since then, the DENSO Group Germany establishes and guarantees the highest quality standards with technically trend-setting products. Research, development and production take place exclusively in Germany. Our employees continuously implement safe and individual solutions in a personal cooperation with the customer.

Product Description

TOK[®]-Crete 45 is a one-component, hydraulically setting mortar with selected aggregates. Along with its high early strength,

TOK[®]-Crete 45 has a very good level of resistance to freeze/thaw loading with and without de-icing agents. Depending on the kinds of loads expected,

roads can be opened again to traffic at +20 °C (+68 °F) after only 45 to 60 minutes.

Product Usage

The material was developed especially for the renovation of concrete road surfaces with edge damage and corner breakage, as well as for filling potholes and larger cracks.

One further application is the renovation of slotted channels in road surfaces.

TOK[®]-Crete 45 can also be used to secure railing posts, and can be deployed to

secure runway and apron lighting in place at airports.

Damage to high-traffic industrial flooring can be repaired without needing to be cordoned off for long periods of time.

Typical Material Properties

	Unit	Result	Remarks
Mixing ratio	-	100 : 6	20 kg dry mortar with 1.2 l of water
Working time	Minutes	10–15 (approx.)	At +23 °C/+73.4 °F
Bulk density	kg/dm ³	2.20 (approx.)	At +23 °C/+73.4 °F
Compressive strength after 2 hours	N/mm ²	16 (approx.)	At +23 °C/+73.4 °F
Compressive strength after 8 hours	N/mm ²	45 (approx.)	At -5 °C* (+23 °F)
Compressive strength after 28 days	N/mm ²	> 45	At +23 °C/+73.4 °F
Young's modulus after 28 days	N/mm ²	30,000 (approx.)	At +23 °C/+73.4 °F
Weathering quantity in freeze/thaw cycles	kg/m ²	< 0.1	Average value

*) Assuming application guidelines are observed

Product Application

Ambient conditions

TOK®-Crete 45 can be worked at temperatures from -10 °C to +30 °C (+14 °F to +86 °F).

The material temperature should be approximately room temperature (15–20 °C/59–68 °F) during working.

Subsurface preparation:

Sand, dust, oil, petrol and other loose particles must be removed from the surface. The normal application thickness is 10–60 mm; it can be up to 100 mm for individual cavities.

The contact surface to the subsurface must be rough.

Installation:

Any exposed reinforcements must be pre-treated accordingly.

Dampen the contact surface with water; standing water must be avoided, however. The mixing ratio of **TOK®-Crete 45** to water is **100: 6** (parts by weight), i.e. 20 kg of dry mortar is mixed with 1.2 l of water. We recommend preparing the required quantity of water in a separate bucket.

After the dry material is added, it should be mixed for 3 minutes using a power mixer at

medium speed until a uniform consistency is achieved. The material must be installed within approx. 10 minutes after mixing. Once installed, the material must be immediately smoothed or contoured.

Caution:

- Never mix up more material than can be worked with in 10 minutes.
- If the ambient temperature drops, mixing time may need to be increased.

Working temperature

< +5 °C (+41 °F)

At lower temperatures, preheat the **TOK®-Crete 45**, water, mixer and accessories to room temperature (15–20 °C/59–68 °F). At temperatures below freezing – or if the subsurface is frozen – the contact surface should also be warmed using a heat gun or similar tool.

After installation, the freshly-installed material should be protected with an insulating material for about 1 to 3 hours.

Working temperature

> +25 °C (+77 °F)

Avoid direct exposure to sunlight. Keep the

TOK®-Crete 45, water and equipment at room temperature (15–20 °C/59–68 °F). If necessary, use cold water.

Reworking

Special reworking materials are not necessary. If **TOK®-Crete 45** needs to be given a coating, the mortar must be dried out sufficiently.

The compatibility of the coating and **TOK®-Crete 45** should be tested in advance.

Recommendations for processing, boundary conditions and reworking must be observed in accordance with DAfStb RiLi-SIB and ZTV-ING.

Health and safety at work

For information on this topic, please consult the safety data sheet.

TOK®-Crete 45 is not a hazardous substance as defined by the German Hazardous Substances Regulation.

Ordering Information and Packaging

Product name	Container unit	Packaging units	Order number
TOK®-Crete 45	20 kg bucket	24 buckets per pallet	102 00 080

Storage

TOK®-Crete 45 must be stored in a dry place and in an airtight container.

Under these conditions, the storage time in the original packaging is at least

2 years from the date of manufacture.

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