




KÖSTER CT 225 Bridge Deck Coating

Technical Data Sheet CT 225

Issued: 2020-05-29

Test report P11169 according to TL-BEL-EP (1999), 5.12.2017 ("Production of concrete bridge coverings", Polymerinstitut, Polymer Institut Kiwa GmbH)
 Test report P 11891 acc. TL-BEL-EP (1999) based on the Danish regulations "ALMINDELIG ARBEJDSBESKIVELSE - BETONBRO - BITUMENASERET - FUGTISOLERING - ABB"
 Test certificate with regard to the adhesive tensile values of the KÖSTER CT 225 reactive resin primer on young concrete; 8.3.2019

Priming and coating epoxy resin for concrete road sections, bridge decks, and civil engineering structures for overworking with mastic asphalt according to ZTV-ING (part 7)

	KÖSTER BAUCHEMIE Surface protection product - coating Physical resistance (5.1) EN 1504-2: ZA. 1f
abrasion resistant capillary water absorption and water permeability impact resistance Tear-off test to assess the tensile strength Behavior in fire after application	AR 0,5 $w = 0,5$ no cracks or delamination, Class I $\geq 2,0 (1,5) \text{ N / mm}^2$ Class E _{fl}

a) According to the decision of the Commission 2010/85 / EU, the product fulfills the fire class E_{fl} without the need for a test.

Features

KÖSTER CT 225 is a thermally stable two component priming epoxy used for concrete road sections, bridge decks, and civil engineering structures. It is especially suitable due to its high chemical resistance against de-icing salts, mineral oils including fuel oils, and permanent contact with water as well as many other substances which can damage concrete structures. KÖSTER CT 225 can be used at low temperatures ($> + 8 \text{ }^{\circ}\text{C}$) and can be used on concrete as young as 7 days.

Technical Data

Mixing ratio	3.3 : 1
Density	1.14 g/cm ³
Viscosity	450 mPas
Color	Transparent, green
Compressive strength	approx. 50 N/mm ²
Bending tensile strength	approx. 12 N/mm ²
Pot life	approx. 30 min.
Application temperature	+ 8 °C to + 30 °C

Fields of Application

KÖSTER CT 225 is used to prepare the surfaces of concrete road sections, bridge decks, and civil engineering structures for overworking with mastic asphalt and bituminous membranes. KÖSTER CT 225 can be used as scratch coat to seal the surface of porous materials and to even the roughness of concrete before the application of asphalts and bituminous membranes.

Substrate

The surface must be prepared by shotblasting. Any kind of surface contamination such as adhesives, coatings, curing compounds, efflorescence, dust, grease, oils, etc., have to be removed completely by shot blasting. Smooth concrete surfaces must be roughened shot

blasting. The substrate must have a minimum adhesive tensile strength of 1.5 N / mm².

Surface irregularities can be leveled with a scratch coat made from KÖSTER CT 225 mixed with KÖSTER MA 30 kiln dried quartz aggregate mixed 1:1 by weight.

During application and curing the surface must have a minimum + 3 °C above the dew point for a minimum of 12 hours. The surface temperature must be a minimum of + 8 °C during application and for a minimum of 12 hours afterwards.

The concrete must be free of alkali sensitive aggregates, and the surface free of water soluble silicates as often found in surface hardeners, sealing agents, and crystalline waterproofing products.

Application

Primer:

The installation is to be executed in accordance with ZTV-ING (Part 7). The two components are mixed with the aid of an electrical stirrer (approx. 300 U / min) for two minutes until a homogeneous consistency is achieved. Repot and stir for another minute. Optionally quartz sand may be added before repotting. The mixed material is spread evenly on the prepared surface (approx. 500 g / m²) with a rubber squeegee. After a reaction time of about 15 minutes it is backrolled with an epoxy grade short napped roller. Material build-up should be avoided. The fresh primer is broadcast evenly with fire-dried quartz sand (grain size 0.2 mm to 0.8 mm, eg KÖSTER Quarzsand MA 20), with a consumption of approx. 800 g/m². For the priming of concrete the surface must be dry. Heating with hot air must not lead to a local lightening of the concrete!).

Sealing:

The two components are mixed with the aid of an electrical stirrer (approx. 300 U / min) for two minutes until a homogeneous consistency is achieved. Repot and stir for another minute. Optionally quartz sand may be added before repotting. The mixed material is spread evenly on the prepared, primed surface with a notched rubber scraper with a consumption of approx. 500 g / m². After a reaction time of about 15 minutes, it is broadcast with KÖSTER quartz sand (0.7 mm to 1.2 mm). to rejection. After curing, excess quartz sand is removed.

Cleaning

Clean tools immediately after use with KÖSTER Universal Cleaner. Hardened material must be mechanically removed.

Packaging

CT 225 020 20 kg metal pail combipackage

Storage

Store the material at + 10 °C to + 25 °C. If stored in originally sealed packages it can be stored for 1 year.

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The proper and thereby effective and successful application of our products is not subject to our control. The installer is responsible for the correct application under consideration of the specific conditions of the construction site and for the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees or representatives which exceed the specifications contained in this technical guideline require written confirmation. The valid standards for testing and installation, technical guidelines, and acknowledged rules of technology have to be adhered to at all times. The warranty can and is therefore only applied to the quality of our products within the scope of our terms and conditions, not however, for their effective and successful application. This guideline has been technically revised; all previous versions are invalid.

KÖSTER BAUCHEMIE AG • Dieselstraße 1-10 • D-26607 Aurich • Tel. 04941/9709-0 • Fax -40 • info@koester.eu • www.koester.eu

Safety

Wear appropriate Protective Personal Equipment (PPE) when installing the material. Observe all governmental, state, and local safety regulations when processing the material.

Other

Liquid polymers react to temperature fluctuations by changing their viscosity and/or curing behavior. Application should only be carried out during falling or constant temperatures. Low temperatures will slow the reaction; high temperatures and mixing large volumes will increase the reaction rate. Protect the coating from moisture of all kinds during application and curing.

Related products

Quartz Sand 0.20 - 0.80 mm	Prod. code CT 482
Quartz Sand 0.06 - 0.36 mm	Prod. code CT 483
Quartz Sand 0.7 - 1.2 mm	Prod. code CT 485
KÖSTER Resin Roller 250 mm	Prod. code CT 916
KÖSTER Resin Roller 150 mm	Prod. code CT 917
KÖSTER Universal Cleaner	Prod. code X 910 010

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The proper and thereby effective and successful application of our products is not subject to our control. The installer is responsible for the correct application under consideration of the specific conditions of the construction site and for the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees or representatives which exceed the specifications contained in this technical guideline require written confirmation. The valid standards for testing and installation, technical guidelines, and acknowledged rules of technology have to be adhered to at all times. The warranty can and is therefore only applied to the quality of our products within the scope of our terms and conditions, not however, for their effective and successful application. This guideline has been technically revised; all previous versions are invalid.

KÖSTER BAUCHEMIE AG • Dieselstraße 1-10 • D-26607 Aurich • Tel. 04941/9709-0 • Fax -40 • info@koester.eu • www.koester.eu