



KÖSTER ESD 275

Technical Data Sheet CT 275 026

Issued: 2022-03-21

Kiwa – Testing of the electrostatic properties according to DIN EN 61340-4-1, DIN EN 61340-4-5 and DIN EN 1081 from May 11th, 2021
Test report P 9788 - Defining the slip resistant properties according to the DIN 51130:2014 an KÖSTER ESD 275

Self levelling coating for electrostatic discharge floors according to ESD Guidelines

Features

KÖSTER ESD 275 is a rigid, solvent free, self leveling surface coating for floor areas which are to be protected by an ESD zone. The KÖSTER ESD System creates an ESD protected floor for areas that have to be protected from static discharge such as electronic areas, in the automobile industry, laboratories, and areas that have to be protected against mechanical and chemical stresses. The KÖSTER ESD System fulfils the norms DIN EN 61340-4 parts 1 and 5, and is therefore also qualified as personal grounding protection.

KÖSTER ESD 275 is suitable as a thin-layer sealant and as a self-leveling coating up to 2 mm thick.

KÖSTER ESD 275 is available in different colors.

Technical Data

Mixing Ratio (by weight, A:B)	7 : 1 (A:B)
Color	stone gray (approx. RAL 7030) light gray (approx. RAL 7035) pebble gray (approx. RAL 7032) basalt gray (approx. RAL 7012) (other colors on request)
Density	1.5 g/cm ³
Pot life (+ 20 °C)	approx. 20 min.
Installation temperature	+ 15 °C - + 25 °C
Layer thickness	0.2 - 2 mm
Resistance against grounding R _g [kΩ]	approx. 173 kΩ
Resistance against grounding R ₂ [MΩ]	approx. 28 MΩ
Personal grounding resistance R (System shoe-floor)	
A) Total system resistance [MΩ]	approx. 4 MΩ
B) Maximum generated potential on body (walking test) [V]	lower than 100 V

Fields of Application

KÖSTER ESD 275 is a rigid surface protection system for concrete protection where ESD protection zones are required for light traffic.

Substrate

The substrate must be free of loose particles, oils, grease, and other contaminants. The substrate must be primed with KÖSTER ESD 175. Depending on the conditions of the substrate, previous measures may be necessary (see TDS KÖSTER ESD 175). Prior to installation, the copper electrical grounding KÖSTER ESD 475 must be attached in a grid of 10 m and connected to the KÖSTER ESD 476 grounding by an electrician. We suggest self-adhesive conductive copper tape.

Application

The A and B components must be conditioned to a temperature between + 15 °C and + 25 °C. The A and B components are mixed intensively using a slowly rotating electrical mixer (max 400 rpm). The material must be mixed for 2 minutes until it is streak free and homogenous in appearance. Re-pot the material and mix again to avoid mixing failures. Apply with a notched spreader or trowel. Spiked shoes must be worn during application while walking over the fresh material. Broadcasting into the material is not permissible.

Application as a sealer

The material is applied with the KÖSTER Resin Roller at the earliest 4 hours after mixing, but not later than 24 hours after application of the KÖSTER ESD 175, and then rolled in two directions. The application rate is approx. 300 g / m². After this layer has hardened, another layer of 300 g / m² must be applied in the same way. Avoid puddling. Spike rolling is not required. The coating must not be broadcasted with fire-dried quartz sand.

Processing as a thin-layer self-leveling coating

With this processing method, a maximum of 5% clean tap water can be added to the material during mixing in order to improve the flow properties. At the earliest 4 hours and a maximum of 24 hours after application of the KÖSTER ESD 175, KÖSTER ESD 275 is applied with a suitable notched spreader up to a layer thickness of 2 mm and then rolled crosswise with a metal spike roller. Finally, apply a final layer of 300 g / m² KÖSTER ESD 275 undiluted as a sealant. When processing several containers, the amount of water added must be precisely adhered to. Sufficient ventilation of the worked area must be ensured to remove the excess water. Due to the added amount of water, small streaks can appear in the leveling coating - but these are covered by the final sealing layer.

With a consumption of 2 kg / m² and a respective coverage, the following slip resistance classes can be achieved:
- glass sphere 0.1 - 0.3, slip resistance class R10
- matting agent 0/5, slip resistance class R09.

Consumption

Approx. 1.0 kg / m² / mm layer thickness

Cleaning

Clean tools immediately after use with KÖSTER Universal Cleaner.

Packaging

CT 275 026 26 kg combi package

Storage

Store the material at temperatures between + 5 °C and + 25 °C. In originally sealed packages the material can be stored for 12 months.

Safety

Wear protective gloves, safety goggles, splash protection, and long

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.

sleeves. Use all Personal Protective Equipment required by governmental, state, and local regulations while processing.

Suggestions

Liquid polymers react to temperature fluctuations by changing their viscosity and/or curing behavior. The instructions given in the Technical Data Sheets must be followed. 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. A temperature difference of + 3 °C to the dew point must be ensured during application and curing. Protect the coating from moisture of all kinds during application and curing.

Related products

KÖSTER LF-BM	Prod. code CT 160
KÖSTER Construction Resin	Prod. code CT 165 025
KÖSTER ESD 175	Prod. code CT 175 008
KÖSTER VAP I 2000	Prod. code CT 230
KÖSTER ESD 475	Prod. code CT 475 025
KÖSTER ESD 476	Prod. code CT 476 001
KÖSTER Universal Cleaner	Prod. code X 910 010

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