Technical Data Sheet
Product number 6668

Epoxy ESD Color 3K

Conductive and ESD-compliant coating

Colour	Availability	
	Quantity per pallet	
	Size / Quantity	**30 kg**
	Type of container	Tin bucket + bag
	Container code	31
	Art. no.	
special colours > 150 kg	6668	■

Application rate

See application examples

Range of use

- Flow coating e.g. in the semiconductor and electronics industries, microbiology and microchemistry
- Flow coating in production areas with electrostatic discharge, e.g. in the automotive and pharmaceutical industries, production areas, warehouses, workshops or battery rooms
- Flow coating with requirements for the protection of persons in accordance with VDE 0100- 410, - 610, VDE 051-485-2 and DIN EN 61340-5-1

Property profile

- Dissipative / ESD-compliant
- Volume conductive when used in a system
- Low electrostatic charging of persons < approx. 30V
- Free from solid salts and aqueous salt solutions
- Crack bridging
- Resistant to mechanical and chemical loads
- Liquid-tight
- Can be given non-slip properties
- Suitable for hand pallet trucks and forklift trucks
- Physiologically harmless once fully cured

Characteristic data of the product

- **On delivery**

	Component A	Component B	Mixture (3C)
Density (20 °C)	1.43 g/cm³	1.06 g/cm³	1.60 g/cm³
Viscosity (25 °C)	1850 mPa s	110 mPa s	

- **Once fully cured**

Reaction to fire (DIN EN 13501-1)	B_{fl}-s1** (flame retardant)
Slip resistance class (DIN EN 51130:2014)	R9 (Scattered with 100 g/m² SIC 03) R10 (Scattered with 20% Mica GHL 3/0)
Earth resistance to ground acc. to EN 61340-4-1 (2.5 kg electrode)	< 1 GΩ (23 °C / 50% RH) < 10 MOhm acc. to DIN 62854 (battery rooms)
Overall system resistance acc. to EN 61340-4-5 (person/shoe/floor)	< 1 GΩ (23 °C / 50% RH)
Maximum body charge acc. to EN 61340-4-5 (walking test)	< 100 V (23 °C / 50 % RH)
Abrasion according to Taber test	10 mg (CS17, 1000 U, 1000 g)
Shore D after 28 days	65
Flexural tensile strength	27.0 N/mm² *
Compressive strength	31.3 N/mm² *

* Epoxy resin mortar 1 : 3 with conductive sand
** Fire test class in defined systems (see test report on fire classification: Remmers conductive systems)
The values stated represent typical characteristic data of the product and are not to be understood as binding product specifications.

Certificates

- **Cleanroom test for particle emission (ISO Class 4)**
- **Cleanroom testing outgassing**
- **Crack bridging**

Possible system products

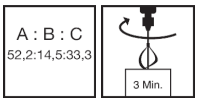
- **Epoxy ST 100 (1160)**
- **Epoxy Conductive (6671)**
- **Epoxy Conductive LE (6701)**
- **Epoxy Conductive VDE (6703)**
- **Copper Tape (4551)**
- **Earthing Kit (4933)**

Preparation

Substrate requirements
The substrate must be firm, dimensionally stable, capable of bearing loads and free of loose constituents, dust, oil, grease, rubber marks and other substances that could interfere with adhesion.
Suitable Remmers epoxy primers, epoxy scratch coats or epoxy mortars must always be used.

Substrate preparation
Before the application of the product a smooth surface must be produced, e.g. with a scratch coat.
Refer to the current Technical Data Sheet for detailed information on the single products.
Always apply Epoxy Conductive LE / VDE as a transverse conducting layer in accordance with the current Technical Data Sheet.

Production of the mixture



Combi-container
Add the entire quantity of the hardener (component B) to the base compound (component A).
Mix thoroughly with a slow-speed electric mixer
(approx. 300 - 400 rpm).
Mix for at least 3 minutes.
Insufficient mixing is indicated by streaks forming.
Then add comp. C and mix again.
Pour the mixture into a separate container and mix again thoroughly.

Mixing ratio (A : B : C)	52.2 : 14.5 : 33.3 parts by weight

As soon as the mixture is ready to use, apply all of it to the prepared surface and spread it using a suitable tool.

Directions

For professional users only!

Conditions for use
Temperature of the material, air and substrate: from min. +12 °C to max. +30 °C.

After application, the material must be protected for at least 72 hours against direct exposure to water and moisture.
Relative humidity should not exceed 80%.
The temperature of the substrate must be at least 3 °C above the dew point temperature during application and curing.

- **Working time (+20 °C)**
  approx. 25 minutes

- **Drying time (+20 °C)**
  Foot traffic after 1 day, mechanical loading after 3 days, full loading capacity after 7 days.

  As a general principle, higher temperatures will reduce and lower temperatures will increase the times stated.

Application examples

- **Coating**
  Pour the material onto the prepared substrate and then distribute using a suitable tool, e.g. a notched trowel or notched scraper.
  Afterwards roll over with a (metal) spiked roller.
  The stated approximate application quantities refer to smooth, level substrates.

Application rate	approx. 2.5 - 3.0 kg/m² mixture

Notes

Unless otherwise specified, all of the values and application rates given above have been determined under laboratory conditions (20 °C) using standard colours. Slight deviations from these values may arise if the product is worked with on site.
When coating continuous surfaces, only use materials with the same batch number as slight differences in colour, gloss and texture may occur.
Due to the black transverse conducting layer, poorly covering colours are not to be used.
Before the application of the covering layer, the correct functioning of the transverse conducting layer and of the connections must be proved and registered in a measurement report.
Low levels of air humidity can cause a higher discharge resistance, uneven or thicker layers can even lead the coating to not be conductive at all.
Before checking the ESD values, we recommend cleaning the ESD shoes, the electrodes and the floor coating with isopropyl alcohol or ethanol (95%) and waiting until it has evaporated.
In case of possible permanent exposure to water or prolonged accumulations of moisture, the formation of white stains on the surface is possible. This does not affect the technical properties of the coating.
Low thickness and low temperature can affect the visual effect of the finished surface.
Abrasive mechanical loads leave traces of wear.
High concentrated loads can leave marks on the impact resistant coating.
Exposure to vehicles with metal or polyamide tyres as well as dynamic concentrated loads can cause faster wearing of the coating.
Epoxy resins are generally not colourfast when exposed to UV light or weather.
In case of repairs on the surface or working up to existing surfaces, there will be a visible transition in appearance and texture.
Further notes on working, system construction and maintenance of the listed products can be found in the latest Technical Data Sheets and the Remmers system recommendations.

Tools / Cleaning

Toothed trowel, notched spreader, mixing apparatus, spiked roller

More detailed information can be found in the Remmers Tool Programme.
Clean tools, equipment and splashed material immediately while fresh with V 101.
Take suitable protective and waste disposal measures when cleaning.

Storage / Shelf life

If stored unopened in the original container and kept cool, dry and protected from frost, min. 12 months (component A)/min. 24 months (component B).

Safety data / Regulations

For professional users only!

For further information on the safety aspects of transporting, storing and handling the product and on disposal and environmental matters, please see the current Safety Data Sheet and the brochure entitled "Epoxy Resins in the Construction Industry and the Environment", issued by Deutsche Bauchemie e.V. (3rd edition 2022).

Personal protective equipment

This information can be obtained from the current Safety Data Sheets and/or the relevant professional associations.

Disposal

Larger quantities of leftover product should be disposed of in the original containers in accordance with the applicable regulations. Completely empty, clean containers should be recycled. Do not dispose of together with household waste. Do not allow to enter the sewage system. Do not empty into drains.

VOC content as per the "Decopaint" Directive (2004/42/EC)

EU limit value for the product (cat A/j): max. 500 g/l (2010).
This product contains < 500 g/l VOC.

VOC
Kat. A/j
2010: 500g/l
max.: 500g/l

Declaration of performance

Declaration of performance

Declaration of conformity

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11 (CE); 21 (UKCA)
GBIII 025_5
EN 13813:2002
6668

Synthetic resin screed / Synthetic resin coating for use internally in buildings

Reaction to fire:	E_{fl}
Release of corrosive substances:	SR
Wear resistance:	≤ AR 0.5
Bond strength:	≥ B 1.5
Impact resistance:	≥ IR 4