

Product 01304400 2-C EP coating for FLOORFINDER ESD, conductive, colour

1 General Data

Fields of application

FLOORFINDER EP-C544AS is a conductive, anti-static coating for use in industrial flooring where there is a high requirement for the dissipation of electrostatic charges in accordance with the ESD standard (DIN EN 61340-5-1) as well as sufficient protection from touch voltage. Areas of application include clean rooms, electronic production areas, microelectronic assembly rooms, computer chip manufacturing, measuring instrument manufacturing, electronic test laboratories and other areas where ESD standards are required. FLOORFINDER EP-C544AS is suitable for use in cleanrooms fulfilling the specification of air cleanliness ISO CLASS 3-9 according to ISO 14644-1:2016.

Product description

FLOORFINDER EP-C544 AS is a pigmented, ready-to-use, sol-vent-free (total solid), 2-component coating compound of high-grade epoxy resin. FLOORFINDER EP-C544AS will be applied on the conductive layer FLOORFINDER EP-E480 to obtain a tough, electrically conductive coating according to the ESD standards DIN EN 61340-4-1, -4-5 and -5-1.

Coating systems with FLOORFINDER EP-C544AS are easy to clean and exhibit a good level of resistance to fuels and lubricants, most solvents, and many other chemicals. Exposure to chemicals may lead to optical discoloration that will not affect the technical usability of the flooring (see chemical resistance list).

In general, epoxy resins are not color stable when they are exposed to UV light or under the influence of weather.

Properties

- Conductive accord. EN 61340-5-1/4-1/4-5
- Self-levelling, seamless
- Mechanical and chemical resistance

FLOORFINDER systems

FLOORFINDER EP-C544AS is used as coating for the FLOORFINDER system:

FLOORFINDER **UNIVERSAL ESD**

Care and maintenance

For the first two weeks just clean the floor with a dry dust mop, in the following two weeks just with a matt damp mop. For a long-term preservation of the properties of resin floors, we recommend regular cleaning and care pro- gram. For further details see our FLOORFINDER care and maintenance guide. Before first use we recommend performing basic cleaning with initial care for conductive flooring.

(A) Technical data	
Liquid mixture (A+B)	
1. Solids content	>99 %
2. Density (20°C)	1.35 g/cm ³
3. Viscosity (20°C)	1800 – 2700 mPas
4. Packaging size	25 kg (18.5 kg A + 6.5 kg B) (17.4 kg A+ 6.5 kg B + 1.1 kg CP) 230kg A + 190 kg B (upon request)
5. Colours	FLOORFINDER standard
6. Shelf life (20 °C)	12 months in closed, original container
7. Storage	Dry at 10 – 30°C, avoid direct sunlight

(B) Technical data	
Cured material	
1. Flexural strength (DIN EN 196)	40 N/mm ²
2. Compressive strength (DIN EN 196)	70 N/mm ²
3. Adhesive strength (DIN EN ISO 4624)	> 2.5 N/mm ²
4. Abrasion resistance (DIN EN ISO 5470-1)	<30mg / 1000 cycles
5. Shore-D-hardness (DIN EN ISO 868)	79 (7 days / 23°C)
6. Resistance to earth* (DIN EN 61340-4-1)	< 10 ⁹ Ω (23°C/50%rel.hum.)
7. Body voltage * (DIN EN 61340-4-5)	< 100 V (23°C/50%rel. hum.)
8. Resistance Footwear/Person/Floor (DIN EN 61340-4-5)	< 3.5 x 10 ⁷ Ω (23°C/50%rel. hum.)

* The surface must regularly be checked for its ESD properties. The review is carried out according to a progress report "Conductive Coatings for industrial floors "of the German Construction Chemicals e. V. If the RE <3.5 x 10⁷ Ω is higher, but the body voltage is <100 V, the functionality of the conductivity meets according to DIN EN 61340-5-1.

*ESD reading may vary, depending on ambient conditions (i.e. temperature, humidity) and measurement equipment

Manufacturer:

Floorfinder Asia Sdn. Bhd., No. 28, Lorong Sungai Puloh 1A/KU6, Jalan Sungai Puloh, Batu 5 3/4, Kapar, 42100 Klang, Selangor Darul Ehsan, Malaysia, tel: +603 3290 7644, email: info@floorfinderasia.com, www.floorfinderasia.com – A division of VIACOR VISION AG, SWITZERLAND

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Technical support

For system build up possibilities and detailed information relating to the laying of FLOORFINDER products, please refer to the FLOORFINDER System Planner or contact Floorfinder Asia Sdn Bhd directly.

Tel: +603 3290 7644

e-mail: info@floorfinderasia.com

2 Application method

Please refer also to our general application guideline.

No handling of silicon containing substances or other products interfering with the reaction in the application area before and during application until the curing of the liquid resin.

Substrate preparation

The substrate must be clean and free from dust and loose particles. All traces of contaminants such as oils, fats, greases, paint residues, chemicals, algae and laitance should be removed.

FLOORFINDER EP-C544AS is poured onto the conductive layer FLOORFINDER EP-E480 (the conductivity of the conductive layer must be checked before*). FLOORFINDER EP-C544AS must be applied no later than 24 hours after the previous layer has been applied.

Application

Neutral Base

Empty contents of component CP (color paste) into component A (Base Resin). Mix with a suitable mixer at a speed of 350 -500 rpm for 2 min to avoid incorporating excessive air into the mixture. Followed by Comp B into mixture and mixed for 1-2 minutes. Transfer the mixture into another clean container and mix for 1-2 minutes.

Colour Base

Empty contents of component B (Hardener) into component A (Base Resin). Mix with a suitable mixer at a speed of 350 -500 rpm for 2 min to avoid incorporating excessive air into the mixture. Transfer the mixture into another clean container and mix for 1-2 minutes.

FLOORFINDER EP-C544AS is poured onto the surface and spread over the entire area using a serrated spatula (tooth size no. 25 or 48) (layer thickness control). The fluid coating must be rolled with a spiked roller, as required. The operator wears spiked shoes to walk on the wet coating.

FLOORFINDER EP-C544AS can be filled with 10% 0.1-0.3mm Filler QNV1 for 1mm self-levelling application. Other size filler types will influence the product, such as leveling and filling grade. Lower temperature required less filing grade.

For cleaning of tools and other contaminations FLOORFINDER SO-X10 tool cleaner is used.

(C) Technical data

Liquid mixture (A+B)

1.	Mixing ratio: A : B	100 : 35.1 (by weight)
2.	Working time	
	At 20°C	25 – 27min
	At 25°C	19 – 20min.
	At 30°C	15 – 16min.
3.	Application temperature	20 – 30°C (mind. 3 K above dew-point)
4.	Material consumption (Conductive Topping)	1.4 – 3.2 kg/m ²
5.	Ready for foot traffic (20°C)	after 24 hours
6.	Following coating (20°C)	within 16 – 24 hours
7.	Fully capable of withstanding stress	
	mechanical (20°C)	after 7 days
	chemical (20°C)	after 28 days
8.	Fully cured (earliest water stress):	at + 23°C after 7 days.

Longer duration of water loads, or longer dammed-up water should be avoided since it may lead to white surface discoloration (not applicable to wet loads that are required for daily cleaning maintenance).

Anti-slip

FLOORFINDER QCF 0 or QCF 1, or QCF 2 may be broadcasted onto the wet coating to achieve a texture anti-slip finish. The selected grade and consumption rate of QCF will determine the final surface profile and slip resistance level. Larger particle sizes and higher loading will produce a more pronounced texture. Different grades and loading levels will result in varying surface roughness and appearance. FLOORFINDER QCF 0 is one of the best conductivity mediums for anti-slip surface.

Note regarding conductive systems:

To check the conductivity values the guideline acc. Progress report "Conductive Coatings for industrial floors" German Construction Chemicals e.V. is recommended. Note: Prior to apply conductive floor coating FLOORFINDER EP-C544AS the conductive layer FLOORFINDER EP- E480 must be measured.

Area coating system	Number of measurements
< 10 m ²	1 measurement / m ²
10 – 100 m ²	10 – 20 measurements
> 100 m ²	10 measurements / 100 m ²

Distance between the measurement points min. 50 cm

Overcoating

It is not necessary to abrade the surface if the following coat is applied within 24 h. After 24 h, the application can only take place after careful grinding of the surface.

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3 Further information

CE-Mark



CE Mark according to EN 13813

EN 13813 "Screed material and floor screeds – properties and requirements" specifies requirements for screed material for use in floor construction internally. Resin flooring and sealer coats are also covered by this standard. For details see CE mark and Declaration of Conformity.

Warnings and precautions

Information relating to the safe handling of this product can be found in the Material Safety Data Sheet. Local regulations concerning the safe handling of epoxy resin-based coating materials must be observed. Suitable protective clothing, including suitable eye protection, must be worn.

Disclaimer

All information on this technical data sheet is based on our current knowledge and experience. This does not release the applicant from performing their own tests as many application factors, beyond our control, affect the application of our product. No guarantee of characteristics or suitability for a special purpose can be derived from this information. All present data, descriptions, drawings, photos, ratios, weights etc. are subject to change without prior notice and do not represent contracted characteristics of the product.

Due to different materials, sub-bases and working conditions, no guarantee of an application result or any liability claims can be derived from these details or from unwritten technical advice except for liability claims based on:

- damage to life, body or health resulting from a negligent violation of obligations or a deliberate or negligent violation of obligation of a legal representative or assistant and
- if we are charged with intention or gross negligence.

The user must test the products for their intended use. The user is responsible for following existing laws and orders and for observing third party trademark rights.

As all FLOORFINDER data sheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue (see www.floorfinderasia.com)

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