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Technical Data Sheet

INDUFLOOR®-IB3350-VC

Art.-No. 5 55039

Volume conductive coating to DIN EN 61340

Description:

INDUFLOOR-IB3350-VC is a solvent free, pigmented, conductive, 2-component epoxy resin which fulfils the requirements of the ESD standard (DIN EN 61340 parts 4.1, 4.5 and parts 5.1/5.2).

Primary Uses:

INDUFLOOR-IB3350-VC is used for coating cement-based surfaces e.g. in

- The electronics industry
- Circuit board production
- The automotive industry
- Hospitals
- Computer rooms

Advantages:

- Solvent free
- Continuously dissipative
- Viscoplastic
- Resistant to mechanical and chemical loading
- High compressive and flexural strength
- Abrasion resistant
- Weather resistant
- No finishing surface seal necessary

Typical Properties:

Basis: 2-component epoxy resin approx. RAL 7032

(standard colour)

Viscosity: approx. $2600 \pm 15\%$ mPas

at +23° C

Mix ratio: 100:45 parts by weight
Application temperature: min. +8° C, max +30° C
Pot life: approx. 45 minutes at +10° C

approx. 25 minutes at +20° C approx. 15 minutes at +30° C

Minimum cure

temperature: $+8^{\circ}$ C Relative humidity: <75%

Foot traffic: after approx. 24 hours

at +23° C

Overcoat after: approx. 24 hours at +23° C

Shore-D hardness: approx. 74

Compressive strength: approx. 52.0 N/mm² Flexural strength: approx. 32.0 N/mm²

Tensile adhesion

strength: Concrete 1.5

ESD requirements	Standards	Requirements	Tested values
Earth discharge resistance	DIN EN 61340-4-1	< 1000 x 10° Ω	14,4 Μ Ω
System: Human-shoe-floor	DIN EN 61340-5-1/5-2	< 35,0 M Ω	3,4 - 17,8 M Ω, je nach Schuhwerk
Walking test	DIN EN 61340-4-5 DIN EN 61340-5-1/5-2	< 100 V	< 10 V

Test basis: ESD footwear

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Application Procedures: Substrate preparation

The area to be treated must be:

- Dry, sound, load bearing and have a good grip
- Free from separating and adhesion inhibiting substances such as e.g. dust, laitance, grease, rubber marks and paint residues etc.
- Protected against moisture ingress from the rear.

Use suitable means to prepare the substrate dependant on its condition such as e.g. sweeping, vacuuming, brushing, scabbling, sand blasting, high pressure water jetting or shot blasting. Level out irregularities with a scratch coat in order to ensure an even thickness of coating of the conductive finish coat. The following minimum requirements are to be fulfilled dependant on the substrate:

Cementitious surfaces:

 Protected against negative moisture pressure from the rear

Product preparation:

Components A (resin) and B (hardener) are delivered in a predetermined mixing ratio. Tip component B into component A. Ensure that the hardener drains completely from its container. Mixing of the components is to be carried out with a suitable mixer at approx. 300 rpm (e.g. drill with paddle). It is important to also stir from the sides and the bottom to ensure that the hardener is evenly dispersed. Stir until the mix is homogenous (free from striations); mixing time approx. 3 minutes. The minimum temperature during mixing should be +15° C. Do not use mixed material directly from the packaging.

Decant the material into a clean container and mix through thoroughly once again.

Production of levelling/scratch coat:

INDUFLOOR-IB 1260: 1.0 part by weight Quartzsand: 1.0 part by weight

(grain size: 0.1 - 0.3 or 0.2 - 0.7 mm diameter)

INDU-FibreFiller: approx. 1.5 - 2.0 %

by weight

The quartz sand is mixed into the previously homogenously prepared and decanted resin and hardener components of the INDUFLOOR-IB 1 260 binder. Ensure that the liquid and solid components are evenly mixed. Before application to vertical or sloping surfaces it is recommended that INDU-FibreFiller is added to the levelling/scratch coat. The addition rate is between 3 and 5% by weight dependent on the slope.

Advice on the method of application:

Dealing with voids, larger pores and irregularities: After the application of the primer, spread out the mixed scratch coat material (see above) using a trowel in one application.

Consumption of prepared smoothing compound: approx. $1,600 \text{ g/m}^2/\text{mm}$.

To avoid the formation of bubbles in following coatings, seal the pores in the scratch coat with INDUFLOOR-IB 1 260.

Consumption: approx. $0.3 - 0.5 \text{ kg/m}^2$.

Note:

Where the residual moisture is <6% and with negative moisture pressure use the moisture suppressing barrier primer INDUFLOOR-IB1250 (see technical data sheet). hrough the applied finish coat after a waiting time of 10-15 minutes at +20° C to avoid the formation of bubbles.

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System build-up and material consumption: System: INDUFLOOR-IB3350-VC

- 1) Substrate preparation see above.
- 2) Application of the primer:

Apply INDUFLOOR-IB 1 260 in one application to completely fill the pores.

Consumption: min. $300 - 500 \text{ g/m}^2$ dependant on the porosity of the substrate.

Note: Do not broadcast quartz into the primer. The following coatings are to be applied the next day.

- 2.1) Requirements: Dealing with voids, larger pores and irregularities: After application of the primer spread out the mixed scratch coat material (see above) using a trowel in one application. Consumption of prepared smoothing compound: approx. 1,600 g/m²/mm.
- 2.2) Requirements: To avoid the formation of bubbles in the following surface finish coating, seal the pores in the scratch coat with INDUFLOOR-IB1260. Consumption: approx. 0.3 0.5 kg/m². Note: Where the residual moisture is <6% and with negative moisture pressure use INDUFLOOR-IB1250 (see technical data sheet).</p>
- 3) Installation of the conductive layer, consisting of: copper strips: INDU-ConductiveStrip (on a 10/10 m grid), consumption: approx. 0.25 linear metres per m². Note: the copper strips are to be connected to earth. Conductive lacquer coat: apply INDUFLOOR-IB2115 in one coat with a roller. Consumption: approx. 180 g/m². Note: Before applying the surface finish coat carry out a test for discharge resistance. The discharge resistance must be < 103 ø.
- 4) Application of the surface finish coat: Evenly spread INDUFLOOR-IB3350-VC in one application using a toothed or notched trowel to the desired thickness. General consumption: 2,500 g/m².
- 4.1) For improved de-aeration of the surface finish coat wait for 10 – 15 minutes at +20° C then roll with a spiked roller in order to avoid air bubble formation.

5) Optional (thorough and initial cleaning):
After a waiting time of 48 hours at +20° C an intense cleaning with INDU-Oilcleanser can be carried out.

Concentration: The concentrate INDU- Oilcleanser is diluted 1:20 with water. Surface cleaning is carried out with a buffing machine or with a cleaning mop for small areas.

Notes:

The substrate must be smooth. Irregularities present must be evened out before coating. The quoted minimum material consumption of 1,6 kg/m² results from an even substrate with a consistent and adequate surface. To ensure high mechanical resistance we recommend an increased consumption/thickness. Thickness: 2.0 mm, consumption: 3.2 kg/m².

Cleaning & Equipment Maintenance:

Thoroughly clean work tools immediately after use with INDU-Cleanser.

Estimating & Supply:

Packaging

Containers up to 30 kg. Components A and B are provided in a pre-determined mixing ratio.

Storage & Shelf life:

6 months in the original unopened container when stored dry and cool above $+10^{\circ}$ C.

Health and safety:

Once cured INDUFLOOR-IB3350-VC is considered harmless. The hardener (B) component is corrosive. Current relevant legislation should be followed at all times when working with epoxies, e.g. hazmat transportation, etc. For more information please consult www.plasticseurope.org.

Important advice:

 The application temperature may not fall below +10° C nor exceed +40° C.

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- Higher temperatures shorten the pot life. Lower temperatures increase the pot life and curing time.
 Material consumption is also increased at lower temperatures.
- To increase pot life/working time at higher temperature store material in a cool environment above +10° C and only expose to warm temperature shortly before mixing.
- Colour: Minor colour variations due to production plants and raw material fluctuations are unavoidable.
 This should be considered when applying coatings.
 Neighbouring sections should be completed with the same production units (see batch number on the packaging).
- The bond between the individual coats to one another can be heavily impeded through the influence of dampness or contamination between applied coats.
- When longer waiting times occur between application of the coats or where surfaces already treated with liquid resin must be re-coated after long time periods, the surface must be well cleaned and thoroughly abraded, after which a completely new coating should be applied free from pores.
- Protect surface coatings from moisture (e.g. rain, melt water) for approx. 4 – 6 hours after application.
 Dampness produces a white discolouration and/or stickiness on the surface and can impede the cure.
 Discoloured and/or sticky surfaces should be taken off by e.g. abrading.
 - If the INDUFLOOR-IB3350-VC system is to be renewed and overcoated with INDUFLOOR-IB3350-VC, the existing coating must first be abraded and once again furnished with a conductive layer (INDU-ConductiveStrip and INDUFLOOR-IB2115), otherwise sufficient conductive values cannot be achieved.
- Applications that are not clearly explained in this technical data sheet may only be carried out after consultation with and written confirmation from the Technical Services Department of SCHOMBURG ICS GmbH.

• Cured product residues can be disposed off under waste disposal code 57123 "epoxy resins".

Please observe a valid EU safety data sheet.

Chem VOC Farb V (2004/42/EG):

Group Lb: i

Class 1 (2007): max. 550 g/l Class 2 (2010): max. 500 g/l

INDUFLOOR-IB3350-VC contains: < 500 g/l

GISCODE: RE 1

This technical data sheet is a translation from German and does not consider local building codes or legal requirements. It shall be used as general reference for the product. Legally binding is only the latest German technical data sheet or the latest data sheet from one of our foreign subsidiaries inside their sales territory.