

Product 01454000 2-comp. EP topping, conductive, self-levelling, solvent-free, coloured

1 General Data

Fields of application

VIASOL EP-C540 AS^{VM} is recommended for use as a conductive surface coating for industrial floors with high demands in terms of electrostatic discharge, especially in explosion proof areas and fire protection zones.

Areas of application are chemical plants, places where organic (flammable) solvents are stored and surrounding areas, hospitals, laboratories, operating theatres and others.

Product description

VIASOL EP-C540 AS^{VM} is a pigmented, ready-to-use, solvent-free 2-component coating compound of high-grade epoxy resin. VIASOL EP-C540 AS^{VM} used with the conductive layer VIASOL EP-E480^{VM} produces tough, electrically conductive coatings according to DIN EN 1081 / DIN EN 61340-4-1, which are easy to clean and exhibit a good level of resistance to fuels and lubricants, most solvents and many chemicals.

In general, epoxy resins are not colour stable if exposed to UV light or under influence of weathering. We recommend to apply a colour stable sealer.

Features & Benefits

Self-smoothing – will form a highly smooth surface

Conductive – electrically conductive

Smooth glossy finish – easy to maintain and clean

Chemical / oil resistant – resists dilute acids and alkalis, vegetable oils, fuels and lubricants, aliphatic solvents and commercial cleaning agents

Abrasion/ impact resistant – hard wearing and durable

Low / no odour – does not taint food

Solvent free – non-flammable, no fire hazard

Aesthetic flexibility – available in a variety of colours

VIASOL systems

VIASOL EP-C540 AS^{VM} is used as a topping for the following VIASOL systems:

VIASOL **UNIVERSAL voltex**

Care and maintenance

The lifespan and performance of your resin floor can be extended considerably by adopting a regular cleaning and care programme. We recommend the use of an alkaline-based cleaning agent.

Manufacturer:

VIACOR Asia Sdn Bhd, No. 5 Jalan Sungai Terap 32/182, Bukit Rimau Industrial Park, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia, tel: +603 5131 7777, fax: +603 5131 7878, mail: info@viacor.asia, www.viacor.asia – A division of VIACOR Polymer GmbH Germany

(A) Technical data

Liquid mixture (A+B)

1. Solids content	98 %
2. Density (25°C)	1.58 g/cm ³
3. Viscosity (25°C)	1500–2500 mPas
4. Packaging size	20 kg (16.3 kg A + 3.7 kg B)
5. Colours	VIASOL standard, other colours on request
6. Shelf life	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 / ASTM C 109)	> 40 N/mm ²
2. Compressive strength (DIN EN 196 / ASTM C 109)	> 70 N/mm ²
3. Adhesive strength (DIN EN ISO 4624)	> 1.5 N/mm ² (concrete failure)
4. Abrasion resistance (DIN EN ISO 5470-1)	< 80mg
5. Shore-D-hardness (DIN EN ISO 868)	83
6. Resistance to earth (DIN EN 1081) (DIN EN 61340-4-1)	≤ 10 ⁶ Ω ≤ 10 ⁹ Ω

Technical support

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

Tel: +603 5131 7777

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2 Application method

Substrate preparation

The substrate must be firm, clean, dry and have a pull-off strength of 1.5 N/mm² minimum.

Wet areas shall be dried with a blowtorch. The moisture content in the substrate must not exceed 4 CM %.

New concrete must be allowed to cure for a minimum of 28 days.

Repair imperfections (holes and cracks) with an epoxy patching compound such as VIASOL EP-T703^{VM} where necessary.

Remove surface laitance, contaminants, coating, curing compound and all weak and loose materials.

Prepare substrate by Captive Shot Blasting or Diamond Grinding to provide the appropriate surface profile for optimum mechanical interlocking.

Primer

Apply an epoxy primer such as VIASOL EP-P210^{VM} by roller to the prepared surface. If the surface is porous, a second coat of primer may be necessary.

To improve inter-layer adhesion, sprinkle VIASOL QS 0.2-0.5 mm quartz sand lightly (approx. 800 g/m²) while the primer is still wet.

VIASOL EP-C540 AS^{VM} is poured onto the conductive layer VIASOL EP-E480^{VM}. The conductive coating layer VIASOL EP-C540 AS^{VM} must be applied no later than 24 hours after the previous layer has been laid.

Application

Before starting the application, the material temperature must be close to site conditions. Ensure floor surface is even to prevent flow.

Mix Component A for 2-3 minutes.

Empty contents of component B (Hardener) into component A (Base Resin). Mix with a suitable mixer at a speed of 500 rpm to avoid incorporating excessive air into the mix. Mix for 2-3 minutes.

Transfer the mixture into another clean container and mix for 1-2 minute.

We recommend to use components with the same batch number.

Pour the wet mix on the floor. Spread the mixed product onto the surface with a notched squeegee or notched trowel. Follow by spike roller to remove entrapped air.

To achieve uniform layer thickness, the tooth rows of the notched trowel must be regularly replaced. Ensure to maintain continuity of wet material between pours.

(C) Technical data

Liquid mixture (A+B)

1. Mixing ratio A : B	100 : 22.7 by weight (kg)
2. Working time (25°C)	approx. 20-25 minutes
3. Application temperature	10 – 30°C (min. 3° above dew point)
4. Material consumption	1.5 – 1.8 kg/m ²
5. Over coating (25°C)	within 12 – 24 hours
6. Cure time to withstand:	
Foot traffic (25°C)	after 18 - 24 hours
Heavy Traffic (25°C)	after 3 days
Exposure to chemicals (25°C)	after 7 days

The fluid coating must be rolled with a spiked roller, as required. The operative wears spiked shoes to walk on the still wet coating.

Allow to cure for 24 hours before exposing to foot traffic.

For cleaning of tools and other contaminations use VIASOL SO-X10 cleaner.

Note for conductive systems:

To check the conductivity values are the assessment report "Conductive coatings for industrial floors" of the German Construction Chemicals Association recommended.

Note: Prior to application of the conductive coating VIASOL EP-C540 AS^{VM} the conductive layer VIASOL EP-E480^{VM} 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 at least 50 cm. If the required measurement value is not reached, further measurements must be carried out within a radius of 50 cm.

Over-coating

An additional conductive sealer can be applied within 24 hrs without grinding. If longer, the surface has to be grinded before over-coating. A second layer with VIASOL EP-C540 AS^{VM} is not possible.

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3 Further information

CE-Mark



CE-Mark according to EN 13813

EN 13813: 2003-01, Screed material and floor screeds - Screed materials - Properties and requirements is the basis for requirements for floor screeds used in indoor flooring constructions. Resin coatings and sealer are also subject to this norm.

Details see CE-conformity mark and conformity declaration.

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 in this technical data sheet is based on our current knowledge and experience. This does not release the applicator 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 an 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 has to test the products for their intended use. The user is responsible for following existing laws and orders and for observing third party trade mark rights.

As all VIACOR data sheets are updated on a regular basis it is the users responsibility to obtain the most recent issue (see www.viacor.asia).

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