

Product 01048000 2-C-EP conductive layer, water-based, solvent-free, low emission, black

1 General Data

Fields of application

VIASOL EP-E1480 is used as a conductive layer for industrial floors with high demands in terms of electrostatic discharge. Furthermore, VIASOL EP-E1480 fulfils in several systems the low emission requirements of AgBB.

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

Product description

VIASOL EP-E1480 is a water-based, solvent-free, black, 2-component-coating compound of high-grade epoxy resin. Before use 20% of water has to be added.

VIASOL EP-E1480 is used as the conductive layer for flooring systems with the topcoat VIASOL EP-C540 AS, VIASOL EP-C540 SKY AS, VIASOL PU-C540 AS, VIASOL EP-C5480 AS or others.

These systems produce a constant resistance to earth of $< 10^6 \Omega$ according to DIN EN 1081 and DIN EN 61340-5-1.

VIASOL Systems

VIASOL EP-E1480 is the conductive layer for the VIASOL system:

VIASOL **UNIVERSAL ESD**
 VIASOL **UNIVERSAL voltex**
 VIASOL **UNIVERSAL SKY voltex**
 VIASOL **UNIVERSAL voltex SR**
 VIASOL **UNIFLEX conductive**
 VIASOL **PERM conductive**
 VIASOL **DESIGN QCV conductive**
 VIASOL **DESIGN QCV ESD**

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 Polymer GmbH directly.

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(A) Technical data	
Liquid mixture (A+B)	
1. Solids content	50%
2. Density (20°C)	1.1 g/cm ³
3. colour	black
4. Packaging size (2-component container)	15 kg (12 kg A + 3 kg B)
5. Shelf life	12 months in closed original container
6. Storage	Dry and frost-free at 10–25°C, always keep from freezing (also during transport), avoid direct sunlight

(B) Technical data	
Cured material	
1. Adhesive strength (DIN EN ISO 4624)	> 2.5 N/mm ² (substrate failure)
2. Resistance to earth (DIN EN 1081 and DIN EN 61340-4-1)	1 – 5 x 10 ³ Ω (just for conductive layer)



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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

VIASOL EP-E1480 is applied onto a very even levelling layer. If used on a with QS broadcasted surface the consumption is higher. The conductive layer should be applied no later than 24 hours after the previous layer has been laid. Application after that is only possible after grinding the substrate carefully. 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.

First, copper tapes are fixed to the prepared substrate for connection to earth by an electrician. The tapes are covered with gauze strips.

Application

The product is supplied in proportionate quantities in 2-component containers. The entire contents of the B-component are emptied into the previously stirred A-component. The two components are mixed until homogeneous for at least 2–3 minutes using a suitable mechanical stirrer. Sieve the material before using. The inclusion of air in the stirring process must be avoided. **Additionally, approx. 20 % water must be added.** The mixture should be poured into a different container and stirred again briefly. VIASOL EP-E1480 is poured onto the surface and spread very thin over the entire area using a rubber squeegee (consumption approx. 100 g/m² on with QNV2 broadcasted surfaces max. 190 g/m²) and rolled with a short pile roller (max. 8 mm) afterwards. To obtain a homogeneous good conductivity and correct curing it is very important that the conductive layer is applied evenly over the whole area. No sand or thixotropic agent may be added and no sand shall be spread on the surface of the conductive layer.

For cleaning of tools and other contaminations use water.

(C) Technical data

Liquid mixture (A+B)

1. Mixing ratio A : B	100 : 25 by weight add 25 parts by weight of water (3 l per 15kg)
2. Working time (20°C)	approx. 20-25 minutes
3. Application temperature:	12–25°C (min. 3°C above dew point)
4. Material consumption on broadcasted surfaces	appr. 80-120 g/m ² appr. 160 – 190 g/m ²
5. Foot traffic (20 °C)	after 6 – 8 hours
6. Consecutive layer (20°C)	within 8–24 hours

Control of conductivity:

Before application of the following conductive coating, the conductive layer VIASOL EP-E1480 has to be tested, e. g. using a MetrISO 2000 measuring device. The conductive layer should have a conductivity of <4 kOhm measured between 2 points with at least 50 cm distance.

Overcoating

The following coat must be applied within 24 h. VIASOL EP-E1480 can't be recoated by 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 Performance.

Decopaint-Guidelines (EU 2004/42/EG)

The maximum allowable VOC content for Product Category IIA j Type wb products (in the ready to use state) is:

Stage II (from 2010) < 140 g/l VOC

In the ready to use state, this product contains less than 140 g/l VOC.

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.de or contact us directly).