Product 01058000 2-comp. EP coating, water-based, vapour-permeable, low emission

1 General Data

Fields of application

VIASOL EP-C580 is used as vapour-permeable coating for industrial floorings capable of resisting to medium and high mechanical stresses. Application fields are e.g. logistic and production sites, shopping malls etc. VIASOL EP-C580 can be used on all sorts of cementitious substrates but is especially suitable for increased substrate humidity and for sub bases sensible to humidity such as for example

- magnesite and anhydrite screeds
- cementitious screeds when humidity is to be expected
- fresh concrete

Product description

VIASOL EP-C580 is a coloured, water-based, low emission, ready-to-use, two-component coating based on high-grade epoxy resin. VIASOL EP-C580 produces tough, joint-free, non-porous floor coatings which are capable of withstanding heavy vehicular and pedestrian traffic. The coating is easy to clean exhibits a high level of resistance to fuels and lubricants, most solvents and chemicals. Exposure to chemicals may lead to optical discoloration that will not affect the technical usability of the flooring (see chemical resistance list).
Compared to traditional epoxy sytems this product shows good UV stability and weather restistance.

Properties

- water vapour permeable
- low emission and solvent free
- good self-leveling and de-aerating
- mechanical resistant
- very good UV and colorstability

VIASOL systems

VIASOL EP-C580 is used as vapour permeable coating and wear coat for the VIASOL systems:

VIASOL***PERM***
VIASOL***PERM SR***

Care and maintenance

For a long-term preservation of the properties of resin floors, we recommend a regular cleaning and care programme. For further details see our VIASOL Care and Maintenance Guide. Before first use we recommend to perform a basic cleaning and initial care.

(A) Technical Data		
Liquid mixture (A+B)		
1.	Solids content	88 %
2.	Density (20°C)	1.78 g/cm^3
3.	Viscosity (20°C)	2000-3000 mPas
4.	Packaging size (2-component container)	37,5 kg (34,3 kg A + 3,2 kg B)
5.	Colours	VIASOL standard others on request
6.	Shelf life / storage	12 months at 10–25°C, always keep from freezing (also during transport)

(B) Technical Data		
Cured material		
1.	Flexural strength (DIN EN 196 / ASTM C 109)	16 N/mm^2
2.	Compressive strength (DIN EN 196 / ASTM C 109)	55 N/mm^2
3.	Adhesive strength (DIN EN ISO 4624)	> 2.5 N/mm^2 (concrete failure)
4.	Abrasion resistance (DIN EN ISO 5470-1)	80 mg/1000 cycles (Taber CS10 wheel)
5.	Shore-D-hardness (DIN EN ISO 868)	80
6.	Value of water vapour resistance (DIN EN ISO 7783)	μ = 4000
7.	E-modulus	7000
8.	Surface	Silky mat

[1]

[1] Tested in the systems VIASOL***PERM***, VIASOL***PERM SR***

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2 Application method

Please refer also to our general appliction guideline.

Substrate Preparation

The substrate must be clean and free of dust and loose particles. It is recommended to use VIASOL EP-P285 as primer before applying VIASOL EP-C580. Depending to the intended evenness VIASOL EP-C580 is applied directly onto the primer (VIASOL EP-P285) or a levelling layer (VIASOL EP-C580). The coating VIASOL EP-C580 should be applied within the recoating interval of the previous layer.

Application

The product is delivered in ready-to-use 2-component containers in the exact mixing ratio. After opening the A-component container, it must be stirred for 2 to 3 minutes. The entire contents of the B-component are emptied into the A-component container and both are stirred for minimum 3 minutes using a suitable electrical stirrer (we recommend to use a double paddle mixer). The inclusion of air in the stirring process must be avoided. Then the mixture should be poured into a different container and stirred again minimum 1 minute. We recommend the application by equal batch numbers.

VIASOL EP-C580 is poured onto the surface and spread in the desired thickness over the entire area using a serrated spatula (e. g. Polyplan No. 48 or Multitool RS4). To achieve uniform layer thickness, the tooth rows of the spatula must be regularly replaced. Afterwards the use of a spike roller is recommended.

For a slightly structured surface a sealing with VIASOL EP-S680 (matt) can be applied. Alternative other sealers as VIASOL EP-S681 (semi gloss), VIASOL PU-S6005P (silk matt) or VIASOL PU-S6005 (transparent, silk matt) can be used.

When doing an anti-skid, with quartz sand broadcasted system or when scatter with decorative flakes the quartz sand or the flakes have to be spread within the processing time.

The relative humidity during processing and during the curing time should not exceed 85% in order to ensure a sufficiently fast evaporation of the water. Therefore, the relative humidity and dew point should be controlled continuously during application and curing. It is important to ensure that connections between two pouring steps of material do not dry up as they will otherwise be visible.

When processing water based coating systems, ensure sufficient air exchange. However, draft of air should be avoid. Different material consumption, too high air humidity and low temperatures can lead to visual impairments (gloss level differences).

Direct sunlight, high temperatures and low humidity cause rapid curing and should be avoided as otherwise it may lead to skin formation, approaches or visible rake marks).

For better cleanability, the product can be sealed the next day with a transparent polymer dispersion. However, this increases the gloss level.

(C) Technical Data

Liquid mixture (A+B)

1.	Mixing ratio A : B	100: 9 (parts by weight)
2.	Working time (20°C)	approx. 60 minutes
3.	Application / material / ambient temperature:	10 – 30°C (min. 3°C above dew point)
4.	Rel. humidity when applied	< 85% (20°C)
5.	Material consumption	2800 – 4000 g/m^2
6.	Foot traffic (20°C)	after 12 – 16 hours
7.	Consecutive layer (20°C)	within 12 - 36 hours
8.	Fully capable of withstanding mechanical stress (20°C) chemical stress (20°C)	 after 7 days after 28 days

For cleaning of tools and other contaminations water is used.

Overcoating

If overcoating takes place within 36 hours after application the coating need not be grinded. After that is only possible after grinding and vacuuming it carefully.

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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3 Further information

CE-Mark

CE

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.

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 characeristics 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 characteritics of the product.
Due to different materials, sub-bases and working conditions, no guaratee 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 vialation 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).

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