

**Product 01170900** 2-C-EP binder for mortars, solvent free, low emission, transparent

## 1 General Data

### Fields of application

Mortar coatings based on VIASOL EP-T1709 filled with VIASOL-QS are used for industrial floors subject to the highest mechanical loads e.g. military buildings, breweries, or production sites with heavy-duty traffic.

### Product description

VIASOL EP-T1709 is a solvent-free, colourless, low emission, two-component epoxy resin binder for liquid-tight synthetic resin screeds and mortars, which are capable of flow due to the low viscosity. It can be used as a primer for mortars on mineral substrates (not on on-grade concrete slabs). VIASOL EP-T1709 shows excellent workability, as well as very good mechanical properties.

The product is used together with suitable quartz aggregates (VIASOL QS40 or 35) as a mortar, it is not a substitute for a self-leveling layer.

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.

### Properties

- flow able mortars (smoothing by machine or with a trowel)
- for liquid-tight mortars
- directly re-coat able without pore sealer
- solvent free
- low emission (accord. AgBB)

### VIASOL Systems

VIASOL EP-T1709 serves as the binder for the special liquid-tight epoxy mortar:

VIASOL **COMPACT green line eco**

### 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.

### 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:

Phone: +49 (0)7472-949990

E-Mail: [info@viacor.de](mailto:info@viacor.de)

### Manufacturer:

VIACOR Polymer GmbH, Graf-Bentzel-Str.78, D-72108 Rottenburg, Tel: +49/7472-94999-0, [info@viacor.de](mailto:info@viacor.de), [www.viacor.de](http://www.viacor.de)

#### (A) Technical Data

##### Liquid mixture (A+B)

|   |  |
|---|--|
| 1. Solids content                                     | 99 %   |
| 2. Density: binder (20°C)<br>Density mortar           | 1.07 g/cm <sup>3</sup><br>approx. 2.0 g/cm <sup>3</sup><br>(VIASOL QS40) |
| 3. Viscosity (20°C)                                   | approx. 700 - 750 mPas   |
| 4. Packaging size<br>(2-component container)<br>drums | 25 kg<br>(17,3 kg A + 7,7 kg B)<br>A: 2 x 200 kg / B: 1 x 178 kg         |
| 5. Colour   | Transparent-yellowish  |
| 6. Shelf life (20°C)                                  | 24 months in closed original container                                   |
| 7. Storage  | Dry at 15–25°C, avoid direkt sunlight                                    |

#### (B) Technical Data

##### Cured material\*

|  |   |
|--|---|
| 1. Flexural strength: mortar<br>(EN 196 / ASTM C 109)    | 30 N/mm <sup>2</sup>                          |
| 2. Compressive strength: mortar<br>(EN 196 / ASTM C 109) | 80 N/mm <sup>2</sup>                          |
| 3. Shore-D hardness<br>(DIN EN ISO 868)                  | D80   |
| 4. Tensile adhesion strength<br>(EN ISO 4624)            | > 2.5 N/mm <sup>2</sup><br>(concrete failure) |
| 5. Abrasion resistance mortar<br>(DIN EN ISO 5470-1)     | 74 mg / 1000 cycles                           |

\*Technical values are determined on a mortar mixture with 14% binder content and VIASOL QS 35 or QS 40 filler.



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## 2 Application method

Please refer also to our general processing instructions.

### Substrate preparation

*Use as a bonding agent / primer:*

The substrate must be prepared by vacuum shot blasting. Rough contaminations can be removed by grinding. VIASOL EP-T1709 can be used as bonding agent directly onto cementitious substrates if the substrate moisture content does not exceed 4 CM%. On on-grade concrete slabs or on substrates with higher residual moisture content an additional primer is necessary. The substrate must be clean and free of dust and loose particles. All traces of contaminants such as oils, fats, greases, paint residues, chemicals, algae and laitance should be removed. The surface should have a tensile adhesion strength of minimum 1.5 N/mm<sup>2</sup>. Cracks and hollows must be properly remedied.

*Use as a binding agent for mortar:*

The substrate must be clean and free of dust and loose particles. Mortars with VIASOL EP-T1709 as binder are applied directly onto the primer VIASOL EP-P210, EP-P203 or VIASOL EP-T703. If the floor shows unevenness or holes, these should be repaired with VIASOL EP-T1709 (filled with VIASOL QS). The mortar coating with VIASOL EP-T1709 as binding agent must be applied within 24 hours after the primer has been laid.

### Application

**Binder:** The product is delivered in 2 component containers in the exact mixing ratio. The entire contents of the B-component are emptied into the A-component container. Both components are stirred until homogeneous for about 2–3 minutes using a suitable electrical stirrer. The inclusion of air in the stirring process must be avoided.

**Primer:** Before using VIASOL EP-T1709 as primer, repotting is necessary. VIASOL EP-T1709 is poured onto the surface in portions and spread with a spatula or a rubber squeegee. We recommend not using VIASOL EP-T1709 as a pure primer just as bonding agent for wet-in-wet applications, it is better to use a standard primer to be free of pores and form a film. The primer should be sprinkled with silica sand 0.3-0.8 mm (approx. 1000 g/m<sup>2</sup>).

**Synthetic resin mortar:** The fillers (e.g. VIASOL QS 35 or VIASOL QS 40) are premixed dry in a forced action mixer. The applicator has to ensure the suitability of the used filling material / grading curve. Then the mixed binder (see above) is added and mixed with the filler for minimum 3 minutes. The mixing ratio of resin / filler can be varied between 1:9 and 1:7 (11-14 % binder) depending on the used filler.

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### (C) Technical Data

#### Liquid mixture (A+B)

|    |   |   |
|----|---|---|
| 1. | Mixing ratio A : B  | 100 : 45 by weight  |
| 2. | Working time (20°C)   | approx. 20–25 minutes   |
| 3. | Application temperature:  | 10–30°C (min. 3°C above dew point)                                |
| 4. | Material consumption:<br>primer<br>Mortar per mm layer thickness                    | approx. 200–500 g/m <sup>2</sup><br>approx. 2000 g/m <sup>2</sup> |
| 5. | Foot traffic (20°C)   | after approx. 14-24 hours   |
| 6. | Following coating (20°C)  | within 14–24 hours  |
| 7. | Fully capable of withstanding<br>mechanical stress (20°C)<br>chemical stress (20°C) | after 7 days<br>after 28 days                                     |

The synthetic resin mortar is applied onto the wet primer or on the dry with QS broadcasted primer in the usual manner in a minimum layer thickness of 6 mm (depending on the grain curve). It is spread and smoothed by hand or a by power trowel, e.g. Schwaborn STR 702 with a plastic plate (PPS), do not use a helicopter. Smoothing with a power trowel is just possible on a cured and sanded primer layer.

### Over coating

If overcoating within 24 hours after application the mortar coating need not be grinded. Overcoating later than that is only possible after grinding it carefully.

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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.

#### Deco paint-Guidelines (EU 2004/42/EG)

The maximum allowable VOC content for Product category IIA j Type Lb in the ready-to-use state is

Stage II (from 2010) < 500 g/l VOC.

In the ready-to-use state, this product contains less than 500 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 trademark rights.

As all VIACOR data sheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue (see [www.viacor.de](http://www.viacor.de) or contact us directly).

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