

**Product 02555000** 5-comp. PU mortar screed, trowel applied, solvent-free, coloured

## 1 General Data

### Fields of application

VIACRETE PU-HF is used in situations with exposure to high chemical, very high thermal and very high mechanical stress as for example in dairy, food & beverage production facilities, slaughter houses, warehouse & distribution centres, chemical and pharmaceutical processing plants. It is normally used as a light to medium textured mortar coating in 6 to 12 mm layer thickness on concrete floors and cementitious substrates.

### Product description

VIACRETE PU-HF is a 5-component, flowable and seamless polyurethane concrete flooring system. It has excellent mechanical and chemical properties and a very high thermal resistance. It is resistant to organic acids, dilute mineral acids, vegetable and animal fats, petroleum oils and solvents. It is suitable for use in conditions of a wide temperature range between -40°C to +100°C (6 mm); -45 to +120 (9 - 12 mm). Exposed to UV and weathering VIACRETE PU-HF is not colour stable.

### Characteristics

- Very good chemical resistance
- Very high impact and abrasion resistance
- Very high thermal shock resistance
- Wide application temperatures -45°C - +120°C
- Hygienic surface
- Complies to HACCP requirements
- Odorless, non-tainting to food
- Solvent free
- Low emission certified

### VIASOL systems

VIASOL PU-HF is the mortar coating for the VIACRETE system:

**VIACRETEHF high-temp**  
**VIACRETEHF high-temp SR**

### Care and maintenance

The lifespan & 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.

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

#### (A) Technical data

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

1. Solids content	99 %
2. Density (23°C)	2.03 g/cm <sup>3</sup>
3. Viscosity (23°C)	thixotropic
4. Packaging size (5-component )	38.77 kg (3.5 kg A + 3.5 kg B + 21 kg C + 10.5 kg D + 0.270 kg colour paste)
5. Shelf life	9 months in closed original container 6 month comp. C
6. Storage	Dry at 10–30°C, avoid direct sunlight

#### (B) Technical Data

##### Cured material

1. Flexural strength (DIN EN ISO 196/ASTM C109)	> 15 N/mm <sup>2</sup>
2. Compressive strength (DIN EN ISO 196/ASTM C109)	> 58 N/mm <sup>2</sup>
3. Hardness Shore-A (EN ISO 868)	D 84 (28d)
4. Fire classification (EN 13501-1)	Bfl-s1
5. Water absorption coefficient (EN 1062-3)	w < 0,01 kg/m <sup>2</sup> h <sup>0,5</sup>



<sup>1</sup>Certified in system VIACRETEHF high-temp

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## 2 Application method

Please note our general processing guidelines for VIACRETE systems. VIACRETE systems should only be processed by trained personnel.

### Substrate preparation

The substrate must be load-bearing, clean, dry and free from separating agents. The substrate must be load-bearing, clean, dry and free from separating agents. The application of silicone-containing substances before and during the application of coatings must be avoided.

The adhesive tensile strength must be at least 1.5 N/mm<sup>2</sup>. The substrate quality must correspond to min. C25/30 according to EN 206-1 in the case of concrete reinforced with monolithic steel (except lightweight concrete) or min. CT-C30-F4 in the case of cement screeds laid in bond and must have a minimum layer thickness of 25 mm. For other substrates, please refer to our general processing guidelines for VIACRETE systems.

VIACRETE PU-HF is always applied on top of a primer or primer filler with VIACRETE PU-SC. For this purpose, anchor joints with a width and depth of at least 6 mm x 8 mm must be cut into the substrate and filled with the primer before laying VIACRETE PU-SC. The anchor joints must be made at the edges of walls, supports and piers as well as around gullies and floor inlets.

### Application

Before starting work, the material temperature should be adjusted to the ambient temperatures and should be at least 10°C.

The color paste (bag) is filled into the component A. Then the color paste is mixed in for about one minute until homogeneity. Component B is then added and also mixed to homogeneity (1.5 - 2 minutes) using an electric stirrer at a speed of 300 rpm. The mixture is poured into a compulsory mixer (min. 50 kg capacity). The components Filler C is added gradually while the mixer is running. Only then is component Filler D added and mixed until homogeneity is achieved (min. 3 minutes).

For smaller areas, a suitable mixing bucket (min. 40 kg capacity) and a double agitator can be used. However, the mixing times must be increased to min. 4 minutes.

To ensure a homogeneous mixture, scrape out the walls and bottom of the mixing container if necessary and mix in unmixed material. When using smaller mixing vessels, re-pot and mix again (1 minute).

The mixing times are to be kept the same for all mixtures in order to avoid differences in color shade.

### (C) Technical data

#### Liquid mixture (A+B)

1. Mixing ratio A : B (gravimetric)	1 : 1 (For absolute weights and other components see 'Packaging size')
2. Working time (23°C)	approx. 10-15 minutes
3. Application temperature:	10 – 30°C (min. 3°C above dew point)
4. Permitted rel. air humidity*	min. 40 % - max. 90 %
5. Material consumption (PU mortar)	2.1 kg/m <sup>2</sup> per mm 13.0 kg/m <sup>2</sup> for ca. 6 mm 19.0 kg/m <sup>2</sup> for ca. 9 mm 25.5 kg/m <sup>2</sup> for ca. 12 mm
6. Over coating (23°C)	within 12 - 24hours
7. Cure time to withstand*: Foot traffic Heavy traffic Exposure to chemicals	after 12 – 20 hours after 2 days after 7 days

\* At low temperatures and low humidities (<40%) the curing times and thus the times for recoating and foot traffic are delayed.

Apply the fresh mixture by means of a screed box or a suitable squeegee to the desired layer thickness (6 - 12 mm), smooth with a trowel or screed blade if necessary and re-roll with a short-pile paint roller (6 - 8 mm). Multiple re-rolling should be avoided in order to maintain the slip-resistant surface.

To increase the anti-skid properties, an additional scattering grain can be applied after approx. 5 minutes and sealed the following day (see VIACRETE **HF high-temp SR**).

Ensure a continuous supply of material and incorporation within 5 - 7 minutes.

The surface should not be walked on with nail shoes, the re-rolling must be done from the side line of the application!

VIASOL SO-X14 Tool Cleaner is recommended for cleaning tools and other contaminants.

### Over coating

It is not necessary to over coat the unsanded surface. If reworking is necessary, this must be carried out after 24 hours at the latest. After 24 hours, it is necessary to lightly grind the surface or use a suitable adhesion primer before reworking.

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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 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.

#### Hazard statements

GIS CODE: PU 40 / ZP 1 (subject to marking)

#### 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.

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