

**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 subject to exposure to high chemical, very high thermal and very high mechanical loads as for example in dairy, food & beverage production facilities, slaughter houses, warehouse & distribution centres, chemical and pharmaceutical processing plants. It is normally used as slightly to medium structured topping on concrete floor at 6 to 12 mm thickness.

### Product description

VIACRETE PU-HF is a 5-component, flowable and seamless polyurethane concrete flooring system. It has excellent mechanical and chemical resistance 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 service temperatures -45°C - +120°C
- hygienic surface
- complies to HACCP requirements
- odorless, non-tainting to food
- solvent free
- low emission

### VIASOL systems

VIASOL PU-HF is the content for the VIACRETE system:

VIACRETEHF *high-temp*

### 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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(A) Technical data	
<b>Liquid mixture (A+B)</b>	
1. Solids content	99 %
2. Density (23°C)	2.10 g/cm <sup>3</sup>
3. Viscosity (23°C)	thixotropic
4. Packaging size (5-component )	37.77 kg (3 kg A + 3 kg B + 21 kg C + 10.5 kg D + 0.270 kg colour paste)
5. Colour	green, oxide-yellow, red, grey, beige, cream, grey- brown
6. Shelf life	9 months in closed original container 6 month comp. C
7. Storage	Dry at 10–30°C, avoid direct sunlight

(B) Technical Data	
<b>Cured material</b>	
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)	approx. 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>



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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

Concrete substrate shall be firm, clean and dry with a surface pull-off strength of minimum 1.5 N/mm<sup>2</sup>. The substrate quality should be a monolithic reinforced concrete with min. C25/30 according to EN 206-1, (except lightweight concrete), or cement screeds in the composite, minimum CT-C30-F4, minimum layer thickness 25 mm, for other substrate see our general application guidelines for VIACRETE PU concrete systems.

Repair imperfections (holes and cracks) with VIASOL EP-T703 combined with quartz sand and make good the grading and levelling where necessary.

VIACRETE PU-HF is always applied on a prepared and with VIACRETE PU-SC primed surface. Remove surface laitance, contaminants, coating, curing compound and all weak and loose materials. Prepare concrete surface by diamond grinding, scarifying or captive shot blasting to provide the appropriate surface profile for optimum mechanical keying.

Cut anchor grooves of 6 mm width and 8 mm depth minimum just inside the perimeter of the area and around drains, columns and protrusions where VIACRETE PU-SC will be applied. Detailed information you can find in the VIACRETE application guidelines.

### Primer

Apply the primer or scratch coat VIACRETE PU-SC with a squeegee and finish by roller to the prepared surface. The consumption is approx. 0.8 – 1.2 kg/m<sup>2</sup> depending on the surface roughness. If the re-coating interval must be exceeded sprinkle VIASOL QS 0.3-0.8 mm quartz sand lightly (approx. 600 g/m<sup>2</sup>) while the primer is still wet.

### Application

Before starting the application, the material temperature must be close to the site conditions but should have min. 10°C.

Dispense the colour paste into Component A. Mix to disperse the colour paste (1 minute) until homogeneous, add component B and mix (1.5 to 2 minutes) until homogeneous using an electric stirrer with a speed of min. 300 rpm.

Pour the mixture in a **compulsory mixer (min. 50 kg capacity)** and add first component filler C-ad and then component filler D gradually to the mix with the mixer running, until homogeneous (min. 3 minutes).

For smaller areas use a mixing pail and a double stirrer (min. 50 kg capacity) and increase mixing time to min. 4 minutes.

### (C) Technical data

#### Liquid mixture (A+B)

1. Mixing ratio A : B Mixing ratio A : B : C : D : CP	1: 1 by weight (kg) 3 : 3 : 21 : 10.5 + 0.270 (kg)
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)	2.10 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 chemical	after 12 – 20 hours after 2 days after 7 days

\* At low temperatures and low humidities (<40% relative humidity), the curing times and thus the times for recoating and walkability are delayed.

If necessary, scrap the sides and the bottom of the mixing vessel to ensure thorough mixing. Small mixing pails should be poured in another pail and shortly (1 minutes) mixed again.

Pour out the wet mix on the prepared floor. Spread over the floor area at the nominated thickness (6 - 12 mm) using a pin rake or better a screed box and smoothing the fresh material with a metal trowel or by several re-rolling steps with a short pile roller (6 – 8 mm).

To increase the slip resistant properties it is possible to scatter in an additional grain and re-roll the scattered surface with a short pile roller again 2 – 3 times to achieve the required slip resistance.

Ensure to maintain continuity of wet material between pours (max. 5 – 7 minutes).

The fresh material should not be committed with spike shoes, the rolling must be done from the side-lines of the application.

Subsets cannot be mixed because only complete sacks of filler may be processed.

For cleaning of tools and other contaminations VIASOL SO-X14 tool cleaner is used.

### Over coating

Over coating should be carried out within 24 hours after application of VIACRETE PU-HF. If longer than 24 hours, it is necessary to lightly grind the surface before over-coating is carried out.

### Manufacturer:

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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.

#### 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 user's responsibility to obtain the most recent issue (see [www.viacor.de](http://www.viacor.de) or contact us directly).