

VIASEAL UREA50/80FL Technical Data Sheet

Product 02350800 Polyurea spray coating, 2-component, highly elastic, flame retardant, 1:1 (Vol)

1 General Data

Fields of application

VIASEALUREA50/80FL is used as spray applied, crack-bridging waterproofing coating for a variety of applications in the construction industry. Applications include tanking, subterranean concrete structures, podium decks, waterproofing layer in car park deck coating systems, tunnel portals, firefighting water tanks and wet rooms.

It can also be used as abrasion resistant coating for truck bed linings, loading ramps, metal protection in the handling and transport of abrasive materials such as sand, gravel etc.

Other applications include secondary containment, waste water treatment plants and conduits.

The spray application and the fast curing properties allow vertical and over-head application.

Product description

VIASEALUREA50/80FL is a highly elastic, solvent free, two component polyurea spray coating with flame retardant properties in direct use.

The product has excellent mechanical properties in a temperature range from -40°C to +120°C (short-term stress). The elasticity of VIASEALUREA50/80FL guarantees the crack-bridging and waterproofing properties. The material is spray applied and cures almost without shrinkage. It can be applied up to several mm thick in a multi pass application.

Coatings based on aromatic polyurea are not colour stable and will yellow when exposed to UV light. We recommend the application of a colour stable top coat in exposed applications.

Technical support

For system build up possibilities and detailed information relating to the laying of VIASEAL products, please contact VIACOR Polymer GmbH.

Phone: +49 (0)7472-949990

E-Mail: info@viacor.de

(A) Technical Data Sheet

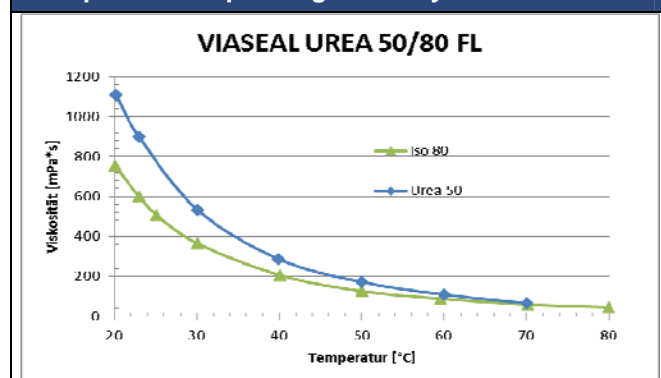
Components	VIASOL UREA-50 FL	VIASOL ISO-80 FL
1. Density (23°C)	1,09g/cm ³	1,13 g/cm ³
2. Viscosity (23°C)	approx. 900 mPas	approx. 600 mPas
3. Packaging size	205 kg (drum)	210 kg (drum)
4. Colour	grey	colourless
5. Shelf life (20°C)	6 months in closed original container	
6. Storage	Dry at 10–30°C, avoid direct sunlight	

(B) Technical Data

Cured material

1. Tensile strength (DIN EN 196/ASTM C109)	> 15 N/mm ²
2. Elongation at break (DIN 53504)	> 280 %
3. Hardness Shore (DIN EN ISO 868)	A97 / D50

*Temperature-depending viscosity curve



Manufacturer:

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2 Application Method

Please refer also to our general application guideline.

Substrate Preparation

VIASEAL **UREA50/80FL** should only be applied to suitably prepared substrates.

The substrate must be load bearing, 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.

VIASEAL **UREA50/80FL** can be applied on concrete, asphalt, bitumen felts, steel, PVC, wood, aluminium and old VIASEAL spray coatings. Depending on the substrate, special pre-treatment and primer must be applied. See VIASOL primer matrix for spray coatings. Provision must be made to anchor the coating at termination.

The surrounding areas should be protected from over-spray with paper or foil, especially in windy conditions.

Application

The amine component VIASOL UREA-50 FL and the isocyanate component VIASOL ISO-80 FL are supplied in separate drums. The pigmented VIASOL UREA-50 FL component should be stirred prior to use to re-distribute the pigments. The material can then be used directly from the drums with the appropriate mixing machine.

VIASEAL **UREA50/80FL** is applied using a 1 : 1 ratio, high pressure spray machine capable of producing 160 – 200 bar at the spray tip at a temperature of 75 – 80 °C. The VIASOL Hybrid-21 and the VIASOL ISO-60 component should be heated to min. 75°C.

Processing with high-pressure systems with static mixer-spray head is also possible (preliminary tests are recommended).

VIASEAL **UREA50/80FL** should be applied wet in wet in a multi-pass application to the desired thickness. The recommended minimum film thickness is 2 mm. If necessary the layer thickness can be applied > 5 mm in one operation.

For cleaning of tools and other impurities use VIASOL SO-X12 tool cleaner. For cleaning of the spray equipment, the notes of the manufacturer must be observed.

Over coating

If applying several layers, it is possible to apply the next layer within 2 hours. After longer intervals, use VIASOL PU-P255 as primer and grind the first layer of VIASEAL **UREA50/80FL**.

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(C) Technical Data

Liquid mixture (A+B)

1. Mixing ratio A : B (23°C)	1 : 1 by volume
2. Working time	only with machine
3. Application temperature (substrate and ambient air)	8–50°C (substrate min. 3K above dew-point)
4. Processing temperature* (Material) both components at static mixer at impingement mixer	High pressure machine: - with static mixer: Preliminary tests recomm. - with impingement mixer ca. 65 – 75°C Preliminary tests recomm. ca. 75 – 80°C
5. Machine – spray pressure* e.g. 2-K spray equipment: e.g. GRACO Reactor H-XP2	High pressure machine with static mixer ca. 120 – 180 bar with impingement mixer ca. 160-200 bar
6. Permissible rel. humidity	max. 90%
7. Material consumption	1100 g/m ² per mm thickness
8. Touch dry	after 20 s
9. Following layer	within 2 hours

* In order to ensure a homogeneous mixture of the two components, tests with the respective systems should be done if necessary. The above-mentioned values are approximate and may differ from the processing parameters actually required.

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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.

Decopaint-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 amine and isocyanate resin based coating materials must be observed.

Suitable protective clothing including suitable respiratory and 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 or contact us directly).

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