HEGGEL® Flex 550

Flexible Polyurethane Coating & Sealing

You Build, We Protect!

Description:

HEGGEL Flex 550 is a free-flow, solvent-free, two-component polyurethane coating and sealer. The product is suitable as flexible interlayer underneath coatings. Especially suitable for kitchen areas as well as a crack-bridging sealing coat underneath reactive resin coating (decorative coatings). Suitable for interior and exterior areas.

HEGGEL Flex 550 with a subsequent covering and colour stable top sealer is suitable for areas with light mechanical load. The coat is not suitable for the industrial usage.

The coating offers very good flow -and smoothing proper- ties and cures without shrinkage. The cured coating offers high flexibility.

HEGGEL Flex 550 offers special advantages where high flexibility is necessary due to the substrate, e.g. for weak and susceptible for deformation substrate like mastic asphalt, flake boards, metallic and reconstruction substrate.

The resistance to chemicals like water, salt solutions, mineral oil, diluted alkalis, and acids is sufficient. Limited resistance to concentrated chemicals, like acids, bases, and many more. Low resistance to solvents.

Note: HEGGEL Flex 550 is available in different colours. Because of its chemical structure the material is not resistant to yellowing. Slight colour alterations are possible due to technical reasons. Please note our indications on colour / colour tones. Pale colours may additionally be sealed with the colour stable **HEGGEL Flex 537.** Point load may become visible.

Characteristics:

- Solvent-free
- Very good flow properties
- Flexible and formable
- Ready-to-use
- For reconstruction work
- Free of deleterious substances against varnish
- Resistant to hydrolysis and saponification

Applications:

- As flexible interlayer (floating layer underneath reactive resin coatings).
- As flexible sealing coat in combination with subsequent coatings on balconies and patios.
- As sealing interlayer underneath scattered coatings, e.g. in kitchen areas.
- As flexible wear layer for areas with little mechanical load.
- On substrate susceptible to deformation like mastic asphalt, metallic, wooden, mixed substrate, and substrate that is susceptible to cracks.

Application Data:

Mixing Ratio	**Parts by Weight** **Parts by Volume**	A : B = 6 : 1 A : B = 100 : 20		
Processing Temperature		Minimum 10°C - Maximum 30°C (Room -and floor- temperature)		
Further Coatings		After curing, but not longer than 48 hours at 20°C		
Consumption		Approx. 1.45 kg/m^2 for each mm of layer		
Thickness of Layers		Starting at 1.0 mm, usually 1.5 - 2.0 mm		
Addition of Quartz Sand		Not recommended - loss of flexibility		
Colours		Colours available on request!		
	@Temperature	**10°C**	**20°C**	**30°C**
Curing Time	**Accessibility**	36 - 48 hrs	24 - 28 hrs	12 - 14 hrs
	Mechanical Load	-	2 - 3 days	-
	Chemical Load	-	7 days	-
Processing Time		45 min	30 min	20 min

Packaging:

Bucket-Combi 10 kg

Storage:

12 months, Store in dry and at frost-free conditions. Ideal storage temperature is between 10 - 20°C. Bring to a suitable working temperature before application. Tightly re-seal opened containers and use the content as soon as possible.

1. Build-up of Coats

Substrate preparation of mineralic substrate

- Prepare the substrate, like e.g. concrete, cement screed by shot blasting.

Build-up **without in-between sanding**

- Prime with the recommended HEGGEL-Base Coats: **HEGGEL Pox 410**, **HEGGEL Pox 481**, **HEGGEL Pox 415**, consumption approx. 0.3 - 0.4 kg/m². For low-emission coatings use the recommended base coat **HEGGEL Pox 481.**
- If necessary: Apply a scratch coat using **HEGGEL Pox 410, HEGGEL Pox 481, HEGGEL Pox 415,** and **HEGGEL quartz sand-mix 2/1,** mixing ratio 1 : 0.8 parts by weight, consumption approx. 0.8 - 1.2 kg/m² of the mixture.
- Alternatively apply a scratch coat right after the application of the base coat without any in-between scattering using **HEGGEL Flex 550** or **HEGGEL Flex 511** in addition of approx. 20 - 30 % quartz sand 0.1 / 0.3 mm, consumption approx. 0.8 - 1.0 kg/m².
- **Important note:** Only when using the base coat **HEGGEL Pox 410** or **HEGGEL Pox 481, HEGGEL Flex 550** may be used right away subsequently without in-between sanding. Curing time after base coat application 14 to 48 hours at the max. (at 20 °C). When using **HEGGEL Pox 415, HEGGEL Flex 550** can be applied subsequently without any in-between sanding after a minimum of 4 to 24 hours at the max curing time (at 20 °C). The surface has to be free of pores.
- Apply **HEGGEL Flex 550** with a toothed coating knife, consumption 2.3 - 2.6 kg/m². Vent with a spiked roller after 10 to 20 minutes.

Substrate preparation for mastic asphalt

- Prepare the substrate mechanically by shot blasting.
- Apply the subsequent scratch coat using **HEGGEL Flex 550** in addition of approx. 20 - 30 % quartz sand 0.1 / 0.3 mm, consumption approx. 0.8 - 1.0 kg/m². The surface has to be free of pores for the subsequent coatings.
- Apply **HEGGEL Flex 550** with a toothed coating knife, consumption 2.3 - 2.6 kg/m². Vent with a spiked roller after 10 to 20 minutes.

Decorative Top Sealer

- For decorative coatings apply a covering top sealer, using **HEGGEL Flex 537,** consumption 0.140 - 0.180 kg/m². By adding **HEGGEL anti-slip additive** the slip resistance may be adjusted up to grade R11.
- **Note:** Using other base coats or working time delayed other than stated, in-between sanding is mandatory.

Build-up of coat as sealer **with in-between sanding**:

- Prime with the recommended epoxy resin primer: **HEGGEL Pox 410, HEGGEL Pox 419, HEGGEL Pox 481** or **HEGGEL Pox 415,** consumption approx. 0.4 - 0.5 kg/m².
- Scatter lightly the fresh surface with quartz sand 0.3 / 0.8mm, consumption approx. 0.5 - 1.0 kg/m².
- Apply the sealer using **HEGGEL Flex 550** in 2 layers. Total consumption approx. 2.5 - 2.8 kg/m². Apply the first layer with 1.5 - 2.0 kg/m². Consumption for the second layer approx. 0.8 - 1.0 kg/m².
- Should there be a change in the coating material, as an epoxy resin or other coatings, different than a polyurethane resin, the second layer of **HEGGEL Flex 550** has to be scattered with quartz sand 0.3 / 0.8 mm, consumption approx. 1 - 2 kg/m².
- After curing, apply a layer of HEGGEL-epoxy resin or HEGGEL-polyurethane resin, consumption at least 2 - 2.5 kg/m², followed by a full scattering, consumption approx. 4 - 6 kg/m².

2. Surface Preparation

The substrate to be coated has to be levelled, dry, and free of dust, has to have adequate tensile and compressive strength, and be free from weakly-bonded components or surfaces. Materials impairing adhesion, such as grease, oil and paint residues must be removed using suitable methods. Please refer to the product information of the recommended HEGGEL-Base Coats like e.g. **HEGGEL Pox 410**, **HEGGEL Pox 415,** and **HEGGEL Pox 412**. The surface to be coated should be prepared mechanically, preferably by shot-blasting. The prepared area has to be primed accurately, saturated, and free of pores. Estimating the substrate according to the necessary sealed state may be difficult, so a scratch coat is recommended for smoothing the surface. If the substrate hasn't been sealed completely bubbles and pores may appear because of rising air. Conduct a trial if in doubt. To improve adhesion, scatter the surface with approx. 0.5 - 1.0 kg/m² quartz sand, grain size 0.3 / 0.8 mm.

Mastic asphalt: A scratch coat using **HEGGEL Flex 550** or **HEGGEL Flex 511** may be applied. Prime steel substrate using **HEGGEL Pox 412** and scatter with quartz sand 0.3 / 0.8 mm. On flake boards a base coat using **HEGGEL Pox 410** or **HEGGEL Pox 481** may be applied.

3. Mixing

Combi-trading units will be supplied in the correctly measured mixing ratio. Component A has sufficient volume for the entire trading unit. Decant the hardener compound B into the resin. Blend with a slow speed mixer (200 - 400 rpm) for at least 2 - 3 minutes, for a material that is homogeneous and free of streaks. To avoid mixing errors it is recommended to empty the resin / hardener mixture into a clean container and mix briefly once again. Stir up the single components for partial withdrawals and weigh for the exact mixing ration.

4. Processing / Handling

Process the material immediately after mixing with a coating knife or toothed trowel by applying an even layer on the prepared surface. The product is adjusted with an optimum of air venting. To upgrade the moistening of the substrate, optimizing the flow-properties and removing any air blows, it is recommended to roll with a spiked roller. Roll time-delayed after 10 - 20 minutes with the spiked roller. Divide working areas before starting work and work "fresh-in-fresh" to avoid any shoulders. Do not scatter too early because of air venting, optimum point of time is after 15 - 30 minutes at 20°C.

Floor -and air- temperature must not fall below 10 °C and humidity must not exceed 75%. To avoid a dew-point situation on the surface to be coated and on the fresh coating, the floor temperature is allowed to be 3°C colder at the max. than the surrounding room / air temperature. The material to be processed has to have room temperature. If a dew point situation occurs adhesion may malfunction and foaming may occur. Technical properties may deviate.

Do not process at strong insolation or on strongly heated surfaces because processing time will decrease and blisters may appear. Fresh polyurethane coatings are very sensitive to moisture. It is mandatory to note the humidity conditions.

Coating dewy substrate, using moist sand as well as sweat may lead to foaming of the material and have to be avoided.

Exposure to water and chemicals has to be avoided for the first 7 days. Curing time applies to 20°C. Lower temperature may increase, higher temperature may decrease the processing and curing time. Deviations in the technical properties of the final product may occur if correct processing conditions are not being observed.

5. Cleaning

To remove fresh contamination and to clean tools, use thinner **Cleaner V40** or **Cleaner V30** immediately. Hardened material can only be removed mechanically.

6. Safety Measures

The product is subject to the hazardous material, operational safety, and transport regulations for hazardous goods. Refer to the DIN-Safety Data Sheet and the information on the labelled containers!

GISCODE: PU 40

7. Indication of VOC-Content

(EG-Regulation 2004/42)

Maximum Permissible Value 500 g/L

(2010,II,j/lb):

Ready-for-use product contains < 500 g/L VOC.

Technical Data

Title	Standard	Value	Unit
Viscosity (Components A + B)	DIN EN ISO 3219 (23°C)	2500	mPas
Solid Content	HEGGEL-Method	> 100	%
Density (Components A + B)	DIN EN ISO 2811-2 (20°C)	1.42	kg/L
Water Absorption	DIN 53495	< 0.2	Weight %
Breaking Elongation	DIN EN ISO 527-3	66	%
Shore-Hardness A	DIN 53505 (after 7 days)	87	-
Abrasion (Taber Abraser)	ASTM D4060	27	mg

Note: Values achieved in sampling are average values. Variation in product specification is possible.

All information contained herein is based on the current state of our knowledge and practical experience at the time of release. Therefore, please make sure that this is the latest edition of the Technical Data Sheet. All data are only intended as a guideline for informational purposes and do not constitute a legally- binding warranty of the suitability for a certain purpose of use, due to its dependence on site conditions and possible processing, use and applications. All information contained in this technical datasheet is subject to change without notice.

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