

HEGGEL® Flex 520

Photo-Stable Polyurethane Coating

You Build, We Protect!

Description:

HEGGEL Flex 520 is a photo-stable, pigmented, two-component polyurethane coating, cures without shrinkage. **HEGGEL Flex 520** is suitable for pale-coloured coatings on decorative interior floors.

The flexible cured coating offers special walking comfort. The coating is especially suitable for interior areas with a high demand to the optical appearance, e.g. living rooms, offices, doctor's offices, fitness centers and wellness areas, schools, and many more. The coating is not suitable for industrially used areas with an increased mechanical load.

The flexible floor coating is applicable for layers starting at 1.5 mm. It is also suitable for deformable substrate, like mastic asphalt, or even older substrate, like e.g. reconstruction areas.

HEGGEL Flex 520 offers good resistance to many common household chemicals, water, salt solutions, diluted acids and bases. Conditionally resistant to solvents.

The coating is available in all standard Colours; the usage is especially reasonable when pale colours are required.

HEGGEL Flex 520 offers good resistance to abrasion. Although it is generally recommended to use a suitable sealer, like e.g. **HEGGEL Flex 535**, or **HEGGEL Flex 537** on top. It is necessary to use the transparent sealer **HEGGEL Flex 535** when scattering with colour flakes.

Note: When a low-emission coating is required, use **HEGGEL Flex 522**.

Characteristics:

- Highly photo-stable
- Free flowing
- Convenient to work with
- Flexible
- Solvent-free
- Results in a decorative surface
- Economical
- Free of deleterious substances against varnish

Applications:

- Comfortable, jointless floor coating for light mechanical load up to medium mechanical load for residents and commercially used areas without any industrial load.
- For decorative, non-yellowing, smooth flooring, e.g. show rooms, living rooms, and office space.
- Use as coating on inelastic substrate and substrate susceptible to deformation, like e.g. mastic asphalt, wooden and mixed material substrate.

Application Data:

Mixing Ratio	Parts by Weight Parts by Volume	A : B = 3 : 1 A : B = 100 : 44		
Processing Temperature	Minimum 10°C (Room -and floor- temperature)			
Further Coatings	After 18 - 24 hours, but not longer than 48 hours at 20°C			
Consumption	Approx. 2.4 - 2.8 kg/m ² for 2 mm layers			
Recommended Layer Thickness	Approx. 1.5 - 2.5 mm			
Colours	Colours upon request!			
	@Temperature	10°C	20°C	30°C
Curing Time	Accessibility	30 - 36 hrs	18 - 24 hrs	15 - 20 hrs
	Mechanical Load	-	2 - 3 days	-
	Chemical Load	-	7 days	-
Processing Time		40 - 50 min	20 - 65 min	15 - 20 min

Packaging:

Hobbock-Combi 30 kg

Storage:

12 months in sealed original containers under dry and cool conditions between 10 - 20 °C. Tightly re-seal opened containers and use the content as soon as possible. Protect from heat and freeze!

1. Build-up of Coats

Preparing the substrate – mineral substrate

- Substrate, like e.g. concrete, cement screed or other – prepare mechanically, e.g. by shot-blasting.

Build-up of coats 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.
- Where 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.
- Alternatively apply a scratch coat without in-between sanding using **HEGGEL Flex 511** or **HEGGEL Flex 520** in addition of approx. 20 - 30 % of quartz sand, grain size 0.1 / 0.3 mm, consumption approx. 0.8 - 1.2 kg/m².
- **Important note:** Only when using base coat **HEGGEL Pox 410** or **HEGGEL Pox 481**, **HEGGEL Flex 520** may be applied straight on top without in-between sanding after at least 14 hours up to 48 hours at the max. (at 20 °C). When using **HEGGEL Pox 415**, **HEGGEL Flex 520** may be applied after 4 hours up to 24 hours at the max. (at 20 °C) as far as the surface is free of pores. When using other base coats or modified time flows in-between sanding is necessary.
- Apply **HEGGEL Flex 520** with a toothed trowel, consumption approx. 2.4 - 2.8 kg/m². Vent with a spiked roller using criss-cross strokes after 10 to 20 minutes.

Preparing the substrate – mastic asphalt

- Prepare the substrate mechanically by shot-blasting.
- Apply a scratch coat using **HEGGEL Flex 511** or **HEGGEL Flex 520** right on top. Add approx. 20 - 30 % of quartz sand, grain size 0.1 / 0.3 mm, consumption approx. 0.8 - 1.2 kg/m². The surface has to be free of pores for the subsequent coatings.
- Apply the coating **HEGGEL Flex 520** with a toothed trowel, consumption approx. 2.4 - 2.8 kg/m². Vent with a spiked roller using criss-cross strokes after 10 - 20 minutes.

Decorative, low-emission top sealer

- Seal decorative coatings with a transparent or covering sealer using **HEGGEL Flex 535** or **HEGGEL Flex 537**, low-emission when used within the system, consumption 0.150 - 0.180 kg/m². By adding **HEGGEL anti-slip additive** to **HEGGEL Flex 535** or **HEGGEL Flex 537** or by using **HEGGEL Flex 535-R10** or **HEGGEL Flex 537-R10** a slip-resistance up to grade R11 can be achieved.

- Scattering with flakes is possible when a subsequent following sealer is used.

Build-up of coating with in-between sanding

- Apply a base coat, e.g. **HEGGEL Pox 412**, consumption approx. 0.3 - 0.4 kg/m².
- Scatter the fresh surface with quartz sand, grain size 0.3 / 0.8 mm, consumption approx. 0.5 - 1.0 kg/m².
- Apply a scratch coat using **HEGGEL Flex 511** or **HEGGEL Flex 520** right on top. Add approx. 20 - 30 % of quartz sand, grain size 0.1 / 0.3 mm, consumption approx. 0.8 - 1.2 kg/m². The surface has to be free of pores for any subsequent coatings.
- Apply coating **HEGGEL Flex 520** with a toothed trowel, consumption approx. 2.4 - 2.8 kg/m². Vent with a spiked roller after 10 - 20 minutes.

Decorative transparent or pigmented top sealer

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. For concrete, moisture content must not exceed 4.5 CM-%, remaining residual humidity. The possibility of moisture ingress from the rear must be permanently excluded. Please refer to the product information of the recommended HEGGEL-Base Coats, like e.g. **HEGGEL Flex 410**, **HEGGEL Pox 415**, **HEGGEL Pox 412**, and **HEGGEL Pox 481**. Prepare the surface to be coated mechanically. The prepared surface has to be primed accurately, saturated, and free of pores. If the substrate hasn't been sealed completely bubbles and pores may appear because of rising air. Conduct a trail 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.

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 hardener B completely into the resin A. Blend with a slow speed mixer (200 - 400 rpm) for at least 2 - 3 minutes, for a material that is homogenous 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.

4. Processing / Handling

Process immediately after mixing with a trowel or coating knife by pulling out 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. To avoid any shoulders always work "fresh-in-fresh" and divide the working areas.

Sealing **HEGGEL Flex 520** has to be carried out with clean over-shoes. Nail shoes are not permissible.

Fresh coatings with polyurethane are very sensitive to moisture. It is essential to keep the moisture conditions. Coating dewy substrate, using moist sand, as well as sweat will lead to foaming of the material and have to be avoided. Conduct measurements before starting to work.

Floor and air temperature must not fall below 10 °C and humidity must not exceed 75%. The material to be processed has to be tempered according to the room temperature. The floor-temperature may be 3 °C at the max. less than the surrounding temperature to exclude a dew-point situation on the surface to be coated and the fresh coating.

If a dew-point situation occurs curing may be disturbed and foaming may occur. Technical properties may be affected. Do not process at increased insolation or on strongly heated surfaces because processing time will decrease and blisters may appear.

Special Remark:

For a slightly thickened **HEGGEL Flex 520** use only our thixotropic agent **HEGGEL AD 966**. Other set-up agents may disturb the curing.

If the products to be applied onto the same surface are pigmented, these preferably have to belong to the same lot. Indeed, by using products taken from different lots, slight colour variations depending on the raw material cannot be excluded. The lot number is indicated on the container label. With certain colours – particularly white, yellow and orange or with light pastel colours – the recommended coating thickness must be observed, in order to guarantee hiding power.

In specific light and weather conditions and after long and intensive use, colour variations, loss of gloss and yellowing may occur.

If the use of swivel chairs or other wheeled pieces of furniture is expected, suitable caster chairs or special floor protection mats are recommended to avoid wearing and abrading the floor.

5. Cleaning

To remove fresh contamination and to clean tools use **Cleaner V30** or **V40** 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 labelled on the 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 2811-2 (23 °C)	Approx. 5.200	mPas
Solid Content	HEGCEL-Method	> 99.7	%
Density (Components A + B)	DIN EN ISO 2811-2 (20 °C)	1.50	kg/L
Breaking Elongation	DIN EN ISO 527-3	97	%
Water Absorption	DIN 53495	< 0.2	Weight %
Shore-Hardness D	DIN 53505 (28 days)	51	-
Abrasion (Taber Abraser)	ASTM D4060	30	mg
Weight Loss	HEGCEL-Method (after 28 days)	0.2	Weight %

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

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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.

HEGCEL GmbH

Huttropstr. 60

45138 Essen

Germany

Tel: +49 201 17003 270

Fax: +49 201 17003 277

E-Mail: info@heggel.de

Web: www.heggel.de