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## HEGSEL Flex 535

Low-emission, environmentally friendly, and photostable 2-component polyurethane matt sealer

## HEGSEL Flex 535-R10

Anti-slip, environmentally friendly and photo-stable 2-component polyurethane matt sealer

### Description:

**HEGSEL Flex 535** is a high-quality, unpigmented 2-component polyurethane sealer for the matt finish sealing of epoxy resin and polyurethane coatings.

**HEGSEL Flex 535** is based on a new environmentally friendly technology and offers a great alternative to solvent consistent sealers and may replace these in wide areas.

The sealer results in even, matt surfaces which grant a pleasant and nice optical appearance. The reflecting "mirror-effect" of glossy coatings is reduced by the light dispersion of the surface. The product is preferably used for optically demanding areas. **HEGSEL Flex 535-R10** is the sealer's anti-slip version.

**Note:** the processing information and the technical data of the slip-resistant sealer do not differ from standard product.

**HEGSEL Flex 535** cures by physical drying and chemical cross-linking to a consistent sturdy film. The product results in a hard and tough, abrasion-proof, photostable film with very little tendency to staining. Very well cleanable.

**HEGSEL Flex 535** offers good resistance to aqueous solutions, diluted acids and alkalis, as well as engine- and fuel oil. The product shows very little tendency to staining to household-chemicals or strongly dyeing foodstuffs, drinks and tobacco like beer/ale, red wine or coke. Because of the water vapour permeable calibration the product may be used as a sealer for permeable coatings like **HEGSEL Pox 433**.

**HEGSEL Flex 535** offers good adhesion on different substrates and may therefore be used on older epoxy and polyurethane surfaces after conducting a trial and testing the interlayer.

**Note:** Sealed surfaces offer only limited resistance to mechanical load; Material handling equipment may effect or destroy the sealer. Limited extent usage. In very or frequently wet areas as well as areas exposed to chemicals, sealers containing solvents would be more appropriate.

### Characteristics:

- Matt surface
- Environmentally friendly
- Abrasion resistant
- Easy to handle
- Low odour
- Water vapour permeable
- Excellent adhesion
- Even appearance

### Application:

- **HEGSEL Flex 535** is used as an unpigmented matt sealer for high-quality epoxy resin- and polyurethane-coatings for interior areas with special demands to the optical appearance.
- Decorative commercial areas with or without decorative scatterings like show-rooms, exhibition areas, shops, offices, use on decorative terrazzo floorings as a finish sealer and so on. Usually use for floors without or with little traffic of material handling equipment.
- Suitable as a finish for high-quality, photo-stable, flexible **HEGSEL Flex 522** decorative coatings. For interior areas.
- Matt sealer for water vapour permeable coatings like e.g. **HEGSEL Pox 433**, with or without chips (flakes).
- Seal and re-work older epoxy resin and polyurethane resin areas after adequate testing and preparation.
- Finish sealer for tempered cement coatings, as well as grounded concrete surfaces, after priming with **HEGSEL Pox 417** (conduct a trial for testing).

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**Technical Data:**

Mixing ratio	Parts by weight	A : B =	100 : 13.6		
	Parts by volume	A : B =	100 : 12.4		
<b>Ripening</b> (imperative)	<b>After mixing wait at least 10 min, then blend once again for 1 min.</b>				
Processing time	Temperature	10 °C / 50 °F	20 °C / 68 °F	30 °C / 86 °F	
	Time	180 minutes	120 minutes	50 minutes	
Processing temperature	Minimum 10 °C / 50 °F (room- and floor-temperature)				
Curing time	Temperature	10 °C / 50 °F	20 °C / 68 °F	30 °C / 86 °F	
(Accessibility)	Time	14 – 18 hrs.	12 - 14 hrs.	8 – 12 hrs.	
Curing	Dust-dry after 2 – 3 hours at 20 °C / 68 °F 2 - 3 days for mechanical load at 20 °C / 68 °F 7 days for chemical resistance at 20 °C / 68 °F				
Further coatings	After 12 - 18 hours, but not longer than 48 hours at 20 °C / 68 °F				
Consumption	0.120 – 0.160 kg/m <sup>2</sup>				
Packaging	Combi-Unit 10 kg				
Shelf life	12 months (originally sealed) – <b>Protect from frost!</b>				

## 1. Substrate

The substrate to be coated has to be levelled, dry, 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. Usually when applying a coat the sealing is applied as the finish layer. Please note that the previous coat hasn't been soiled already. The ideal point of time for sealing is achieved when the previous coating has built an adequate film, but hasn't cured completely yet. When using the usual systems curing applies to 20 °C / 68 °F after 18 hours at the earliest and 72 hours at the latest. When sealing at a later point of time conduct a trial and test the substrate for adequate adhesion. Clean and prepare older substrate with a suitable mechanical method where required. When sealing old synthetic resin surfaces test for adequate adhesion. It is recommended to conduct a trial.

## 2. Mixing

Combi-trading units will be supplied in the correctly measured mixing ratio. Temper component A before use. Shake well before emptying in a clean oval bucket. Add component B and mix immediately. Blend with a slow speed mixer (200 - 400 r/pm) 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.

## 3. Ripening

### Important to improve results:

**Wait at least 10 minutes (pre-reaction) – and blend once again.**

**HEGGEL Flex 535** must be mixed 10 minutes before application to achieve optimum technical properties. Blend briefly

one more time to achieve a complete homogenisation.

**Processing time max. 2 hours at 20 °C / 68 °F (see chart “Processing time”).**

**Note:** End of pot-life not visible!

## 4. Processing / Handling

Process right after homogenisation just like with all other reactive resin products. Apply with a lint-free velour roller. Divide working areas to avoid duplicate application and overlaps. Duplicate applications and overlapping may cause an uneven appearance and streaks. For larger areas it is recommended that 2 or more people apply the material. One or more people apply the material in one direction another person distributes the fresh material in a 90°-angle. Use a 50 cm roller for re-rolling on larger areas. Roller should be coated with the material. Use only for distribution not for application. Always work „fresh-in-fresh“ and watch for an even distribution. Avoid ponding otherwise blooming may occur.

Floor- and air-temperature must not fall below 10 °C / 50 °F and humidity must not exceed 75 %. The suggested ambience conditions must be respected also during the curing phase. The difference in floor- and room-temperature must be less than 3 °C / 37.4 °F so the curing will not be disturbed. If a dew-point situation occurs adhesion and curing may malfunction and spotting may occur. Exposure to water and chemicals should be avoided within the first 7 days. Curing time applies to 20 °C / 68 °F. Lower temperature may increase, higher temperature may decrease the curing and processing time. If working conditions are not complied with, deviations in the described technical properties may occur in the end product.

## 5. Cleaning

To remove fresh contamination and to clean tools, use water immediately. Hardened material can only be removed mechanically.

## 6. Cleaning and maintenance of sealed coatings

For cleaning note the recommendations for care and maintenance. For the warranty of interlayer adhesion do not apply any HEGGEL-floor care products on aqueous sealers within the first 7 days at 20 °C / 68 °F.

## 7. Suitable Coatings

The following self-levelling coatings can be sealed with **HEGGEL Flex 535 / HEGGEL Flex 535-R10**:

**HEGGEL Pox 450, HEGGEL Pox 455, HEGGEL Pox 420, HEGGEL Pox 420 Rapid, HEGGEL Pox 430, HEGGEL Pox 434, HEGGEL Pox 432, HEGGEL Flex 520, HEGGEL Flex 522, HEGGEL Flex 510, HEGGEL Flex 511, HEGGEL Flex 525.**

With other coatings adhesion must be tested. The surface adhesion can anyway be improved by grinding.

## 8. Storage

Store in dry and at frost-free conditions. Ideal storage temperature is between 10 - 20 °C / 50 - 68 °F. Do not store above 35 °C / 95 °F. Bring to a suitable working temperature before application. Tightly re-seal opened containers and use the content as soon as possible.

## 9. Special Remarks

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: W1/DD

### Indication of VOC-Content:

(EG-Regulation 2004/42)

Maximum Permissible Value 140 g/l (2010,II,j/wb):

Ready-for-use product contains < 140 g/l VOC.

## Technical Data\*

Viscosity	Components A + B	Approx. 250 - 400	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solids content		> 40	%	HEGGEL-Method
Flashpoint		Not flammable	-	DIN 51755
Density	Components A + B	1.06	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Abrasion (Taber Abraser)		< 13	mg	ASTM D4060
Diffusion resistance rate		7500	-	DIN EN ISO 12572
Diffusion equivalent air layer sd (0.1 mm)		0.75	m	DIN EN ISO 7783-2
Brightness (85°)		25	-	DIN 67530

(\*Values achieved in sampling are average values. Variation in product specification is possible.)

## VOC-Contents

The product complies with the high requirements to low VOC-contents, as required for sustainable construction. Therefore these values exceed by far the European Union directive 2004/42/EG (decopaint-directive).

	Reference to*	Max. Value	Actual Content
<b>Directive 2004/42/EG</b> Decopaint-directive	Component A	≤ 140 g/l	10.5 g/l
	Component B	≤ 140 g/l	0 g/l
<b>DGNB</b> German Sustainable Building Council	Components A + B	< 3 %	0.9 %
<b>climate:active</b> Climate protection initiative of the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water	Components A + B	< 3 %	0.9 %
<b>LEED</b> Leadership in Energy and Environmental Design	Components A + B	< 100 g/l	9 g/l
<b>Minergie Eco®</b> Quality standard of the "Minergie society", Switzerland	Components A + B	< 1 (< 2) %	0.9 %

(\* According to the decopaint-directive single components are used for the calculation. For the quality rating system for sustainable construction the mixture of both components in the correct mixing ratio is the determining factor.)

**HEGGEL Flex 535 / HEGGEL Flex 535-R10**; Revision No: 1.00 / Last Revision Date: 20.10.2020

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 actual 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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