



*You Build, We Protect!*

# HEGGEL® Flex 515

Polyurethane Self Levelling Coating

**Description:**

**HEGGEL Flex 515** is a two-component, self levelling polyurethane coating, colored. VOC < 500 g/L.

**Characteristics:**

- Tough-hard
- Self-levelling
- Self-ventilating
- Can be filled with quartz sand (30 up to 50 %)
- Up to 80 % natural / renewable raw materials
- Very high chemical resistance
- Very high mechanical resistance
- Crack-bridging (0.3 mm static / unfilled 4 kg/m<sup>2</sup>)
- Inert and harmless once cured

**Applications:**

**HEGGEL Flex 515** is a **multifunctional** industrial floor coating which is suitable for use on substrates e.g., concrete, cement screed, mastic asphalt (indoor), latexfalt, timber, steel, aluminum, magnesia and anhydrite / gypsum (please consult us!). The combination of high impact resistance, high compressive strength and its crack-bridging properties makes **HEGGEL Flex 515** the best economical system choice for use in production plants, sales areas, warehouses, exhibition halls, garages and showrooms. **HEGGEL Flex 515** is suitable for both new construction and renovation. Using the high quality HEGGEL Flex - sealers optimizes the surface properties e.g., silk matt finish / UV resistance, higher abrasion and chemical resistance.

**Application Data:**

<b>Mixing Ratio (Parts by Weight)</b>		A : B = 100 : 20 (5 : 1)			
<b>Substrate Temperature</b>		Minimum 10°C up to maximum 30°C			
<b>Material Temperature</b>		15°C - 25°C			
<b>Maximum Relative Humidity of Air</b>		At 10°C: 75 % (dew point +3°C) at > 23°C: 85 % (dew point +3°C)			
<b>Colour</b>		Pebble grey approx. RAL 7032, concrete grey, sand yellow (other colours are available on request)			
		<b>@Temperature</b>	<b>10°C</b>	<b>23°C</b>	<b>30°C</b>
<b>Curing Time</b>	<b>Accessibility</b>		24 hrs	12 hrs	5 hrs
	<b>Mechanical Load</b>		48 hrs	24 hrs	12 hrs
	<b>Chemical Load</b>		5 days	3 days	2 days
<b>Pot Life (Approx.)</b>			30 min	20 min	15 min

**Note:** All above values are approximate and may be used as a guideline for specifications

**Note:** Due to raw material variations and manufacturing techniques, a slight colour / batch difference may occur

**Technical Data:**

Title	Standard	Value	Unit
<b>Density (23°C)</b>	-	Approx. 1.50	g/cm <sup>3</sup>
<b>Volume Solids</b>	-	Approx. 100	%
<b>Viscosity (23°C)</b>	-	Approx. 2200 ± 500	mPas
<b>Compressive Strength</b>	DIN EN ISO 604	Approx. 45 – 55 without / with quartz	N/mm <sup>2</sup>
<b>Shore D - Hardness</b>	DIN EN ISO 868	Approx. 60	-
<b>Elongation at Break</b>	DIN 53504	5 - 15 depending on quartz sand	%
<b>Tensile Strength (23°C)</b>	DIN EN ISO 527	Approx. 8 (unfilled)	N/mm <sup>2</sup>

**Packaging:**

30 kg – Kits

**Storage:**

12 months, unopened in original drums under dry conditions and a temperature of 15 - 25°C. At temperatures < 15°C crystallization is possible. Please consult us.

## 1. Surface Preparation

Prior to the application, the substrate must be prepared by mechanical means using qualified equipment e.g. Blastrac® shot blasting.

### Minimum requirements:

- Free of cement laitance, dust, oil, fat and other contaminants
- Open textured, absorbent surface
- Pull off strength min. 1.5 N/mm<sup>2</sup>
- Concrete residual moisture max.

Depending on the condition of the substrate the surface must be made non-porous by the application of a primer and / or key coat using **HEGGEL Pox 490**, followed by a light sprinkle of clean, dry quartz sand. **On concrete surfaces where there is rising damp, residual moisture or damp concrete of maximum 6%, HEGGEL Pox 404 must be used.**

Once cured, carefully remove excess sand. Hard asphalt (only indoor) must be prepared by shot blasting or abrasive grinding. Minimum 50 % of the filler aggregates must be exposed.

See also "general preparation and application instructions" sheet.

## 2. Application

Prior to mixing, the temperature of the components must be between 15 - 25°C. Mix the components in the correct ratio using a suitable low speed electric mixer (300 - 400 rpm) for at least 3 minutes or until a completely homogeneous mixture has been achieved. Put the mixed material into a clean container and mix again for at least 1 minute more. After mixing, fillers can be added whilst stirring constantly. Distribute the mixture immediately onto the surface. **HEGGEL Flex 515** can be applied as a pure product or mixed with clean, dry, tempered quartz sand Ø 0.1 - 0.3 mm. The mixing ratio (w/w) will be determined by the type of use / application. To apply use a notched trowel (rubber or metal). Spread **HEGGEL Flex 515** as an even coat ensuring uniform thickness. **The freshly applied coating should be finished off with a spiked roller within 5 minutes to achieve an excellent surface and to remove bubbles. This is even more important when filled with quartz sand. In order to improve the optical quality (e.g. reddish shades of grey), the fresh coating should be treated with a suitable nylon roller (e.g. 14 mm pile height).**

Prior to, during and after the application the temperature of the substrate must be at least +3°C above the current dew point temperature.

**HEGGEL Flex 515** can also be applied to substrates that are at minimum temperatures +5°C, however in these conditions the consumption, application and curing will be affected in a negative manner.

## 3. System Description

The following figures are for ambient and surface temperatures of 15 - 23°C. Both high and low temperatures will influence the filler ratio and the consumption per m<sup>2</sup>.

### Primer:

**HEGGEL Pox 490**, clear

Consumption: approx. 0.3 - 0.5 kg/m<sup>2</sup>, lightly sprinkle with clean, dry, quartz sand Ø 0.4 - 0.8 mm (approx. 0.5 kg/m<sup>2</sup>).

### Key coat:

**HEGGEL Pox 490** + quartz sand

Consumption: approx. 0.6 kg/m<sup>2</sup> resin plus quartz sand, lightly sprinkle with clean, dry, quartz sand Ø 0.4 - 0.8 mm (approx. 0.5 kg/m<sup>2</sup>).

### Self-levelling coating:

**HEGGEL Flex 515**, pebble grey

Consumption: approx. 1.5 - 4.0 kg/m<sup>2</sup>.

### System thickness: 2 - 3 mm.

**Hard asphalt (only indoor)** surfaces can directly be coated with **HEGGEL Flex 515** without the use of a special primer.

By using both the clear and pigmented polyurethane topcoats it is possible to modify the aesthetic finish e.g., silk matt, glossy, smooth and anti-slip. Topcoats also improve both the chemical and mechanical resistance (please consult us).

**Professional maintenance will increase the service life of the flooring system.**

### N/B:

UV radiation cause discoloration.

## 4. Chemical Resistance

Acetic acid 10 %	resistant
Ammonia 5 %	resistant
Boric acid 4 %	resistant
Chlorine bleach 6 %	resistant
Chrome acid 10 %	resistant
Citric acid < 10 %	resistant
Diesel	resistant
Disinfectants	resistant
Formaldehyde 37 %	resistant
Formic acid 10 %	resistant
Hydrochloric acid 10 %	resistant
Hydrogen peroxide 10 %	resistant
Lactic acid 25 %	resistant
Nitric acid 10 %	resistant
Petrol / Super	short-term
Phosphoric acid 25 %	resistant
Phosphoric acid 50 %	resistant
Sodium lye 50 %	resistant
Sulphuric acid 50 %	resistant
Sulphuric acid 70 %	short-term

Diluted acids  
Diluted alkalis  
Aliphatic solvents  
Forklift up to 40 N/mm<sup>2</sup> (4 wheels)  
Steel work platforms that vibrate

Tested for min. 4 months at 20°C; whether discoloration did occur was not considered.

## 5. Safety Measures

Avoid inhalation of the vapours and contact with skin. Wear suitable protective clothing, gloves and eye / face protection. Adequate ventilation of the working area is recommended. After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. When using do not eat, drink, smoke and keep away from sources of ignition. For additional references to safety-hazard warnings, regulations regarding the transport and waste management please refer to the relevant Safety Data Sheet.

**GISCODE: PU 40**

## 6. EU Directive ("Decopaint-RL")

Acc. to the EU Directive 2004/42/EG the maximum allowed content of VOC (Product category All / j / type SB) is 500 g/L (Limit 2010) for the ready to use product. This product is in accordance with the EU Directive 2010.

**HEGGEL Flex 515**; Revision No: 1.11 / Last Revision Date: 11.10.2023

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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