

HEGSEL® Flex 515

2-C-PU-self-levelling coating

You Build, We Protect!

Description: 2-component polyurethane coating, coloured
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/m²)
 - inert and harmless once cured

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

Consumption: 1.5 - 4.0 kg/m², additional filling with e.g. quartz sand Ø 0.1 - 0.3 mm is possible.

- Resistant to:**
- diluted acids
 - diluted alkalis
 - aliphatic solvents
 - see list of chemicals that it is resistant to
 - forklift up to 40 N/mm² (4 wheels)
 - steel work platforms that vibrate

Technical data:

Mixing ratio A : B	100 : 20 by weight (5 : 1)
Density (23°C)	approx. 1.50 g/cm ³
Volume solids	approx. 100 %
Viscosity (23°C)	approx. 2200 mPa·s ± 500
Compressive strength (DIN EN ISO 604)	approx. 45 - 55 N/mm ² without / with
Shore D - hardness (DIN EN ISO 868)	approx. 60
Elongation at break (DIN 53504)	5 - 15 % depending on quartz sand -
Tensile strength (DIN EN ISO 527 at 23°C)	approx. 8 N/mm ² (unfilled)

Details for application:

Pot life (10°C / 23°C / 30°C)	approx. 30 minutes / 20 minutes / 15
Substrate temperature	minimum 10°C up to maximum 30°C
Material temperature	15°C - 25°C
Maximum relative humidity of air	at 10°C: 75 % (dew point +3°C) at > 23°C: 85 % (dew point +3°C)
Curing time / foot traffic (10°C / 23°C / 30°C)	24 hours / 12 hours / 5 hours
Curing time / mech. resistance (10°C / 23°C / 30°C)	48 hours / 24 hours / 12 hours
Curing time / chem. resistance (10°C / 23°C / 30°C)	5 days / 3 days / 2 days
All above values are approximate and may be used as a guideline for specifications	

Packaging: 30 kg - pails

Colour: pebble grey approx. RAL 7032, concrete grey, sand yellow (other colours are available on request)
- due to raw material variations and manufacturing techniques, a slight colour / batch difference may occur -

Storage: 12 months, unopened in original drums under dry conditions and a temperature of 15 - 25°C. At temperatures < 15°C crystallisation 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/mm²
- concrete residual moisture max. 4 %

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 m².

Primer:

HEGGEL® Pox 490, clear

Consumption: approx. 0.3 - 0.5 kg/m², lightly sprinkle with clean, dry, quartz sand Ø 0.4 - 0.8 mm (approx. 0.5 kg/m²).

Key coat:

HEGGEL® Pox 490 + quartz sand

Consumption: approx. 0.6 kg/m² resin plus quartz sand, lightly sprinkle with clean, dry, quartz sand Ø 0.4 - 0.8 mm (approx. 0.5 kg/m²).

Self-levelling coating:

HEGGEL® Flex 515, pebble grey

Consumption: approx. 1.5 - 4.0 kg/m².

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 discolouration.

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

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

5. Packaging

30 kg - sets

25 kg component A

5 kg component B

6. Health and safety

GISCODE: PU 40

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.

7. 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; 1.01/20.10.2020. 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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