HEGGEL® Coat 155

Fast-Curing Polyurethane Coating

You Build, We Protect!

Description:

HEGGEL Coat 155 is a two-component polyurethane spray coating, designed for high-performance protection of steel and concrete structures. The product forms a tough-hard, high-gloss film with excellent abrasion resistance that is resistant to acids and alkalis, offering outstanding chemical and mechanical durability. Because of its fast-curing formulation, **HEGGEL Coat 155** must be applied exclusively with plural-component spray equipment and can be built up in multiple passes to achieve considerable thickness on vertical surfaces.

Characteristics:

- Tough-hard
- Free from softeners
- High-gloss appearance
- Fast-curing formulation
- High abrasion resistance
- Superior chemical resistance
- Very high mechanical resistance
- Inert and non-hazardous once cured
- VOC < 500 g/l

Application Areas:

The coating provides effective corrosion protection and can also serve as an internal lining for storage containers and tanks holding hazardous liquids, Class A III substances, heating oil EL, or diesel oil. It is particularly suitable for protecting battery trays, racks, and process equipment in wastewater and sewage treatment plants.

Application Data:

Colour	Black (Other colours are available on request) **Note:** Due to raw material variations and manufacturing techniques, a slight colour / batch difference may occur.		
Mixing Ratio	A : B = 3 : 1 (Parts by weight) A : B = 2.5 : 1 (Parts by volume)		
Consumption	~ 1.3 kg/m² per 1 mm, dry film thickness (DFT) minimum 2 mm on concrete and 0.8 mm on steel		
Temperature	**23 °C**		**60 °C**
Reaction Start	~ 80 sec		~ 20 sec
Temperature	**8 °C**	**23 °C**	**30 °C**
Curing Time (Foot Traffic)	36 hrs	24 hrs	24 hrs
Curing Time (Mechanical Load)	48 hrs	24 hrs	24 hrs
Curing Time (Chemical Load)	7 days	3 days	2 days

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

Technical Data:

Title	Standards	Value
Solids Content	-	~ 100%
Density (Mix) @23 °C	-	~ 1.35 g/cm³
Viscosity @23 °C	-	Part A: ~ 2500 ± 500 mPas Part B: ~ 140 mPas
Shore D - Hardness After 28 days (poured)	DIN EN ISO 868	~ 65
Tensile Strength	DIN 53504	~ 17 MPa
Elongation at Break	DIN 53504	~ 80%
Temperature Resistance	-	Dry temperature max. 80°C Short-term up to 120°C Wet temperature max. 40°C

Packaging:

90 kg (30 kg drum component A + 60 kg barrel component B)

Storage:

6 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

1.1. Concrete

Prior to the application the substrate must be prepared by mechanical means using qualified equipment shot blasting.

Minimum requirements are that the surface must be free from cement laitance, dust, oil, grease, and other contaminants. The substrate should be open textured and absorbent, with a minimum pull-off strength of 1.5 MPa and a maximum residual moisture content of 4%. Depending on the substrate condition, the surface must be made non-porous by applying a primer and/or key coat using **HEGGEL Pox 492**, 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.

1.2. Steel

Prior to the application the substrate must be prepared by mechanical means using qualified equipment e. g. shot blasting in accordance with DIN ISO 12944-4 Sa 2 ½.

Minimum requirements are that the surface must be stable and free of mil scale, rust, oil, fat and other contaminants.

2. Environmental Conditions

Environmental Conditions	Value
Maximum Relative Humidity	At 8 °C: 75% At > 23 °C: 85%
Substrate Temperature	min. 8 °C up to max. 40 °C
Dew Point Distance	min. +3 °C

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

Note: HEGGEL Coat 155 can also be applied on substrates with temperatures as low as +5 °C, although under such conditions the material consumption, application properties, and curing process may be adversely affected.

3. Application Tools

HEGGEL Coat 155 must be applied exclusively using a two-component, high-pressure spray system with heating capability.

4. Mixing

Both components must be heated and mixed in the exact ratio by injection system. The material temperature, depending on spray equipment should be in range of 50 – 60 °C.

5. Application

Apply the material by spray in a crosswise manner, using 2 to 4 wet-on-wet coats. The coating thickness obtained on horizontal surfaces should also be achieved on vertical areas.

Minor surface defects can be repaired manually using the same material.

Note: For manual application and minor repairs, apply the material with a brush in one direction only.

6. 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.

Concrete:

Primer:

HEGGEL Pox 492, clear

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

Key coat:

HEGGEL Pox 492 + quartz sand

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

Spray Coating (2 mm):

HEGGEL Coat 155, black

Consumption: ~ 2.6 – 3.0 kg/m².

Steel:

Spray Coating:

HEGGEL Coat 155, black

Consumption: ~ 1.3 – 1.5 kg/m². Coating thickness for battery trays minimum 1000 µm.

7. Cleaning

It is strongly recommended to clean and flush the spray unit's mixing chamber immediately after application. For extended shutdowns (e.g., over weekends), immerse the pumps and hoses, particularly those used for the hardener, in Mesamoll to prevent curing and ensure trouble-free operation.

8. Chemical Resistance

HEGGEL Coat 155 is resistant to sulphuric acid (accumulated acid), mineral oils and diesel fuel, diluted acids and alkalis, heating oil EL, fresh water, ground and surface water, salt water and sewage.

Note: The coating surface is smooth and glossy. Over time, exposure to harsh weather conditions may cause discoloration and chalking; however, this will not affect the product's performance, properties, or overall integrity.

9. Safety Measures

Avoid inhaling vapors and prevent contact with skin. Always wear appropriate protective clothing, gloves, eye/face protection, and suitable respiratory equipment. Ensure adequate ventilation in the working area. In case of skin contact, wash immediately with plenty of water and soap. If the product comes into contact with the eyes, rinse thoroughly with water and seek medical attention. Do not eat, drink, or smoke while using the product, and keep it away from sources of ignition.

The material safety data sheets of the individual components, the safety instructions on the packing (label) as well as the legal requirements for handling hazardous materials must be observed.

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