PRODUCT DATA SHEET

PENEFLOOR™ PU-COAT

Version, Penetron Hellas 19.01.2023

POLYURETHANE BASED SEMI-RIGID INDUSTRIAL FLOOR COATING

DESCRIPTION

PENEFLOOR™ PU-COAT is a single component, semi-rigid, polyurethane based industrial floor coating. PENEFLOOR™ PU-COAT is specially designed for use as a floor coating, providing high mechanical strength, high abrasion and chemical resistance. Cures by reaction with ground and air moisture.

RECOMMENDED FOR

PENEFLOOR™ PU-COAT is mainly used in medium-duty industrial floor coating, such as:

- Car parking areas
- Car repair garages
- Warehouses
- Factories
- Animal/poultry breeding farms
- Oil mills
- Food industries
- Cold storage rooms
- Storage rooms

It can also be used as a protective floor coating against heavy chemical load, acidic solutions, oils, mineral oils, etc., or as a protective coating in wastewater treatment tanks.

ADVANTAGES

- Easy to apply (single component, ready-to-use)
- Provides high abrasion resistant, tensile and impact strength
- Decorative material
- Floors coated with PENEFLOOR™ PU-COAT are not permeable to oils and water
- Stops the creation of dust
- Heat and frost resistant
- Ensures good elasticity. Follows the surface movement
- Resistant to water. Can be applied on areas with puddled water
- Provides strong resistance to chemicals and detergents. Good chemical and mechanical resistance
- Maintains its mechanical properties over a temperature span of -20 °C to +90 °C (-4 °F to 194 °F)
- Low cost

TECHNICAL CHARACTERISTICS

Characteristics	Test Result	Test Method
Composition	Prepolymerized polyurethane resin with solvents	
Color	Grey, light grey, red, green, light green and yellow	
Resistance to water pressure	No leakage (1m water column, 24h)	DIN 1928
Elongation at break	>50%	DIN 53504
Tensile strength	> 3 N/mm^2	DIN 53504
Flexural strength	400 kg/cm^2	Inside Lab Test
Hardness (Shore D scale)	20	ASTM D 2240
Adhesion to concrete	> 2 N/mm^2 (concrete failure)	EN 1542
Application temperature	5 °C to 35 °C (41 °F to 95 °F)	Conditions: 20 °C (68 °F), 50% RH
Tack free time	2-3 hours	
Light trafficking	12 – 24 hours	
Curing time	24 hours	
Final curing time	4 days	

Chemical resistance of PENEFLOOR™ PU-COAT

Potassium hydroxide 5%	+	*Sodium hydroxide 5%*	+
Ammonia 5%	+	*Hydrochloric acid 5%*	+
Citric acid 5%	+	*Sea water*	+
Domestic detergents (diluted)	+	*Dichlormethane*	-
Diesel fuel	+	*N-methyl pyrrolidone (brake fluid)*	-

All data are average values obtained under laboratory conditions. Impractical use, temperature, humidity and absorption of the substrate may influence the above given values.
+ : Stable. - : Non stable (color change). ± : Stable for a short period.

DIRECTIONS FOR USE

Surface Preparation: The surface needs to be grinded with a grinding machine. The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the coating. Maximum moisture content should not exceed 5%. New concrete structures need to dry for at least 28 days. Old coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine. Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed.

NOTE: Careful surface preparation is essential for optimum finish and durability**.** Do not wash surface with water. Use only stone grinding machine (Stone No 12) or diamond grinding machine.

Priming:

Porous Substrates: Apply PENEPRIMER™ PU on porous substrates (e.g. concrete, wood), using a nap roller, brush or spray gun. Apply the first layer of PENEFLOOR™ PU-COAT after 2-3 hours (but not later than 4 hours) and while the surface is “tacky”.

In case of application on very porous substrate, two layers of PENEPRIMER™ PU, prior to PENEFLOOR™ PU-COAT application, is highly recommended.

Non-porous substrates: Apply PENEPOX™ W on non-porous substrates (e.g. mechanically troweled floor, terazzo), using a nap roller. Apply the first layer of PENEFLOOR™ PU-COAT, after 12 hours (but not later than 18 hours) and while the surface is “tacky”.

Application: Apply the second layer of PENEFLOOR™ PU-COAT after 2-3 hours (but not later than 4 hours) and while the first layer of PENEFLOOR™ PU-COAT is “tacky”.

NOTE: The primer (PENEPRIMER™ PU, PENEPOX™ W) and the two layers of PENEFLOOR™ PU-COAT must be applied on the same day, to ensure maximum possible bonding.

Coverage: 150 - 200 gr/m^2 (0,03 – 0,04 lb/ft^2) per layer. Applied on two layers.

SPECIAL CONSIDERATIONS

For the best results, the temperature application and curing should be between 5 ºC to 35 ºC (41 ºF to 95 ºF). Low temperatures cause curing retardation, while high temperatures speed up curing. High humidity may affect the final finish.

Careful compliance with the time margins is essential for an excellent result.

Contact PENETRON HELLAS S.A. for further information regarding your project.

PACKAGING

PENEFLOOR™ PU-COAT is available in 20 kg (44 lb), 10 kg (22 lb), 5 kg (11 lb) and 1 kg (2,2 lb) containers.

STORAGE / SHELF LIFE

PENEFLOOR™ PU-COAT can be stored for 9 months in its original packing (unopened container) at 5 ºC – 35 ºC (41 ºF – 95 ºF) in a cool, dry place. Keep away from wet areas and direct sunlight.

SAFE HANDLING INFORMATION

Flammable. No smoking. Avoid skin and eye contact. If contact is made, flush areas with lots of water and seek medical advice. Protective gloves, mask and goggles should be worn. For further information please refer to Safety Data Sheet. PENETRON HELLAS S.A. has recently updated Safety Data Sheet on the safe use of PENETRON® products. Each Safety Data Sheet contains health and safety information for the protection of your employees and your customers. KEEP OUT OF REACH OF CHILDREN.

CERTIFICATION

PENEFLOOR™ PU-COAT is certified by the General Chemical State Laboratory that after curing, satisfies the conditions of EN 1935/2004 and EN 1895/2001 Regulations and the Article 25 of the Food and Drinks Code Regulation.

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DOP NO: 14.007-01-05D070722-05
EN 13813
PENEFLOOR PU-COAT
Synthetic resin screed system for internal use:
EN 13813 SR-B2,0-AR0,5-IR6
(Used with PENEPOX SF PRIMER
and PENECOAT SL)
EN 13813 SR-B2,0-AR0,5-IR6
Reaction to fire: E_{fl} *
Release of corrosive substances: SR
Water permeability: NPD
Wear resistance: AR0,5
Bond strength: B2,0
Impact resistance: IR6
Impact sound insulation: NPD
Sound insulation: NPD
Heat insulation: NPD
Chemical resistance: NPD

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