

REC HYPER COAT PU-404

Liquid-applied polyurethane/Bitumen waterproofing membrane

PRODUCT

Rec Hyper Coat PU- 404 is a liquid-applied, highly permanent elastic, cold applied and cold curing, bitumen extended, one component polyurethane membrane used for long lasting waterproofing. Solvent based.

The **Rec Hyper Coat PU- 404** is based on pure elastomeric hydro- phobic polyurethane resins, and is extended with chemically polymerized virgin bitumen, which results in excellent mechanical, chemical, thermal and natural element resistance properties.

Cures by reaction with ground and air moisture.

PROPERTIES

- Simple application (roller or brush). No need to use open flames (torch) during application.
- When applied, it forms a seamless membrane without joints.
- Provides excellent adhesion to almost any type of surface
- Resistant to water.
- Resistant to frost.
- Provides excellent crack-bridging properties.
- Good water vapor blocking properties.
- Provides excellent thermal resistance, it never turns soft.
- Maintains its mechanical properties over a temperature span of -30°C to +90°C.
- Even if the membrane gets mechanically damaged, it can be easily repaired locally within minutes.
- Resistant to domestic chemicals.

SCOPE OF USE

- Waterproofing of foundations.
- Waterproofing of retaining walls.
- Under-tile waterproofing in bathrooms, balconies, terraces, kitchens, roofs, etc.

CHARACTERISTICS

Property	Results	Test Method
Color	Black	
Elongation at Break	> 800 %	ASTM D 412 / DIN 52455
Tensile Strength	> 4.5 N/mm ²	ASTM D 412 / DIN 52455
E-Modulus	~ 0.6 N/mm ²	ASTM D 412 / DIN 52455
Tear Resistance	14.1 N/mm	ASTM D 624
Puncture Resistance	150 N	ASTM E 154
Resistance to Hydrostatic pressure	No leak @ 3 bar (30 m water column)	DIN 16726
Adhesion to concrete	>1.0 N/mm ²	ASTM D 903
Hardness (Shore A Scale)	35	ASTM D 2240 (15")
Thermal Resistance (80°C for 100 days)	Passed-No significant changes	EOTA TR-011
Hydrolysis (5% KOH, 7days cycle)	No significant elastomeric change	Inhouse Lab
Service Temperature	-40°C to +90°C	Inhouse Lab
Max. Temperature short time (15min shock)	250°C	Inhouse Lab
Tack Free Time	5 hours	Conditions: 20°C, 50% RH
Light Pedestrian Traffic Time	24-48 hours	
Final Curing time	7 days	
Chemical Proper ties	Good resistance against acidic and alkali solutions (5%), detergents, seawater and oils	

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INSTRUCTIONS FOR USE

SURFACE PREPARATION

All surfaces should be clean, dry, free from grease, oil or dust. Remove all loose material. Moisture content should not exceed 5%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. New concrete structures need to dry for at least 28 days. Old loose 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. Do not wash surface with water!

REPAIR OF CRACKS AND JOINTS

The careful sealing of existing cracks and joints before the application is extremely important for long lasting waterproofing results.

Clean concrete cracks and hairline cracks, of dust, residue or other contamination. Prime locally with the **Rec Hyper Coat PU-403** and allow 2-3 hours to dry.

Fill all prepared cracks with **Rec Seal PU 505**. Then apply a layer of **Rec Hyper Coat PU-404**, 200 mm wide centered over all cracks and while wet, cover with a correct cut stripe of the **Rec Geo Textile PET** Press it to soak. Then saturate the **Rec Geo Textile PET** with enough **Rec Hyper Coat PU-404**, until it is fully covered. Allow 12 hours to cure.

Clean concrete expansion joints and control joints of dust, residue or other contamination. Widen and deepen joints (cut open) if necessary. The prepared movement joint should have a depth of 10-15 mm.

The width:depth ratio of the movement joint should be at a rate of approx. 2:1. Apply some **Rec Seal PU 505** on the bottom of the joint only. Then with a brush, apply a stripe layer of **Rec Hyper Coat PU-404**, 200 mm wide centered over and inside the joint. Place the **Rec Geo Textile PET** over the wet coating and with a suitable tool, press it deep inside the joint, until it is soaked and the joint is fully covered from the inside. Then fully saturate the fabric with enough **Rec Hyper Coat PU-404**. Then place a polyethylene cord of the correct dimensions inside the joint and press it deep inside onto the saturated fabric. Fill the remaining free space of the joint

with **Rec Seal PU 505**. Do not cover. Allow 12- 18 hours to cure. The careful sealing of existing cracks and joints before the application is extremely important for long lasting waterproofing results.

PRIMING

On sound, high quality concrete surfaces no primer is necessary. Prime very absorbent and brittle concrete or

brittle cement screed surfaces with **Rec Hyper Coat PU-403**.

WATERPROOFING MEMBRANE

Stir well before using for at least 2-3 minutes Apply the **Rec Hyper Coat PU-404** onto the surface by roller or brush, until all surface is covered. After 8-24 hours apply another layer of the **Rec Hyper Coat PU-404**.

For demanding applications, apply a third layer of the **Rec Hyper Coat PU-404**.

Reinforce always with the **Rec Geo Textile PET** at problem areas, like wall-floor connections, 90° angles, chimneys, pipes, waterspouts (siphon), etc. In order to do that, apply on the still wet dry **Rec Hyper Coat PU-404** a correct cut piece of **Rec Geo Textile PET**, press it to soak, and saturate again with enough **Rec Hyper Coat PU-404**.

If the **Rec Hyper Coat PU-404** is to be covered with ceramic tiles, fully saturate with oven-dry silica sand (corn-size 0,4-0,8mm) the last layer while still wet. This saturation will create an adhesion bridge to the tile adhesive that will follow For best results, the temperature during application and cure should be between 5°C and 35°C. Low temperatures retard cure while high temperature speed up curing. High humidity may affect the final finish.

WARNING: The **Rec Hyper Coat PU-404** is slippery when wet. In order to avoid slipperiness, sprinkle suitable aggregates onto the still wet coating to create an anti-slip surface. Please contact our Technical support for more details. Protection /Thermo insulation on Foundations/Retaining Walls

Protect the cured **Rec Hyper Coat PU-404**, with a drainage board before backfilling.

If an additional (optional) Thermo insulation is required, place an insulation board (XPS, EPS, etc) on the cured **Rec Hyper Coat PU-404**. Following to that place the protective drainage board.

CONSUMPTION

1.2 - 2 kg/m² applied in two or three layers.

This coverage is based on application by roller onto a smooth surface in optimum conditions.

Factors like surface porosity, temperature and application method can alter consumption.

STORAGE

9 months, stored in a dry and cool rooms in unopened original packaging. Protect the material against moisture and direct sunlight. Storage temperature: 5° - 30°C.



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SAFETY PRECAUTIONS

Application should be done in a ventilated area away from any heat source. Wear protective gear for hands and eyes and avoid breathing of vapor. If mixed resin comes into contact with the skin, it should be promptly removed before hardening, followed by thoroughly washing the skin with soap and water. In case of heavy vapor inhalation, place affected person in an open-air area. In case of contact with eyes, wash thoroughly with clean water. If swallowed, do not induce vomiting. In all cases, seek medical attention. In case of fire, use CO2 foam to extinguish. Tightly seal containers when not in use, store them away from heat and carefully dispose empty ones.

DISCLAIMER

While the company guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use, and that this Data Sheet version is the latest one. The company may modify it without prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's office in your location.

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