

Polyurea Hybrid with high chemical resistance to 95-98 octane gasoline

DESCRIPTION OF THE PRODUCT

Polyurea Eurotaff AR HG31 is a membrane with fast drying properties, for the application in a liquid form. It consists of two components which are 100% solid. This product can be applied only by a two-component spray machine in a hot way.

Polyurea Eurotaff AR HG31 is a membrane which creates a coating that has fast gel time in comparison to common products available at the market. For this reasons, for applying it, it is necessary to have a specialal equipment. This product can be applied in the condition of very low temperatures since environmental conditions do not affect its performance and final features.

RECOMMENDED APPLICATION

This product is recommended for waterproofing and as a high-resistance protection of coatings of steel and concrete tanks which do not have big expansions.

Main application of the product:

- Protective coatings against corrosion
- Waterproofing and protection of retention basins
- Protection of pavements which are in contact with spilled-over chemical products.
- Waterproofing of gas-oil and petroleum tanks
- Anticorrosion coating of containers
- Protection of metals against corrosion.

CHARACTERISTICS AND ADVANTAGES

- Fast reaction and drying time
- Almost immediate putting into operation
- 100% solids
- Excellent crack-bridging properties
- High resistance to solvents, petrol, acids and bases (consult technical department)
- Excellent anticorrosion protections

PRODUCT DETAILS

RESIN: Part B: liquid for pigmentation
ISOCYANATE: Part A: yellowish liquid
PIGMENT: Colour pigment chart (Grey RAL: 7011, White RAL: 9003, Black RAL: 9005)
They are also supplied by request according to the Colour Chart RAL).

DELIVERY FORM

Part B RESIN: 215 kg drum
Part A ISOCYANATE: 250 kg drum

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STORAGE CONDITIONS

Part B RESIN: 12 months
 Part A ISOCYANATE: 6 months starting from its manufacture date, in its original packaging well-closed and not deteriorated, at a dry place under temperatures between +5° C and +30°C

TECHNICAL INFORMATION

Chemical base	Polyurea
Density:	Part B: ~ 1,00 kg/l Part A: ~ 1,07 kg/l Mixture: ~ 1,025 – 1,075 kg/l All density values are at 25 °C
Gel time	Approximately 8-15 seconds
Time of loss of stickiness	Approximately 15-20 seconds
Curing time	24 hours
Solids content	99%
Viscosity	Part B: ~ 700 mPas Part A: ~ 400 mPas

MECHANIC/ CHEMICAL PROPERTIES

Traction resistance	~ 20 N/mm2	(ASTM D 412)
Shore hardness (D)	~ 85 a 90	(DIN 5305)
Elongation at break	10%	(ASTM D 412)
Abrasion resistance	15 (Roll H-18/ 1 kg/mg/cycle)	(DIN EN ISO 5470)
Tear strength	350 kN/m	(DIN 53515)
Weight loss at immersion	0.1%	
Reaction to the fire	Euroclass F	
Chemical resistance	Polyurea Eurotaff AR HG31 resists to the majority of chemical products. Please, ask a detailed table on chemical resistance.	

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APPLICATION DETAILS

	Coating system	Product	Consumption
Consumption / dosage		Prime coating according to type	0,3 - 0,5 kg/m ² /layer
	System for concrete structures	Dusting with quartz sand	1 - 1,5 kg/m ²
		Membrane	~ 1 kg/m ² = 1mm
	<p>Technical properties and behaviour of Polyurea Eurotaff AR HG31 are not affected at exposure to UV radiation. Polyurea Eurotaff AR HG31 can sustain esthetic discoloration if it is exposed to UV radiation. These values are theoretical and do not include additional material which can be required due to porousness of surface, side face of surface, variations of level and losses, etc.</p>		
Quality of Surface	<p>The concrete surface should be thick and should have enough surface compression strength (minimum 25 N/mm²) and minimal pull-out resistance of 1,5 N/mm². The surface should be clean, dry and free of pollutants like dust, oil, fat, painting and other surface treatments. In case of doubt, a test should be made first.</p>		
Surface preparation	<p>The concrete surface should be prepared mechanically by using abrasive blasting equipment or by scarifying it for peeling off surface grout and getting a textured and open-pore surface. Weak concrete and surface defects like cracks and gaps should be eliminated. The surface should be repaired by filling up cracks, gaps and levelling it by appropriate products. It is necessary to prime and level the surface until getting the desired result. Sharp-angle irregularities should be eliminated by a polishing machine. All dust and loose materials should be removed from the surface before application of the product, using brush or vacuum cleaner.</p>		

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APPLICATION CONDITIONS

Surface temperature	From 20 °C to +70 °C
Temperature of the environment	From 20 °C to +40 °C
Humidity content in surface	≤ 10% of parts of humidity content by weight. There should not be humidity on capillary rise according to ASTM norms (polyethylene film)
Dew point	Attention to condensation! The surface and uncured membrane should be at least 3°C above the dew point for reducing the risk of condensation and avoiding damage to a membrane finish.

APPLICATION INSTRUCTIONS

Mixture	Part A: Part B = 100:100 (by volume) Before spraying, Part C (pigment) should be mixed with part A by mechanical means until getting homogeneous mixture. Next step, measure out and mix two proper components by spray equipment which functions by hot method. Both components should be warmed: component A- Isocyanate should be warmed up to 60 °C and component B- Polyol- up to 80°C. It is necessary to test out the mixture and measure it out at regular intervals. Polyurea Eurotaff AR HG31 should not be diluted under any conditions. The component A, a material of resin, should be mixed vigorously until getting a homogenous mixture and colour.
Application method	Before applying, verify the humidity content of surface, relative humidity of the air and dew point. Priming: It is necessary to implement priming on already prepared surface with Primer- 022, Primer-30. It should not be applied only by dumping. For avoiding forming of pores, this product should be applied with roller, and if necessary, in two layers. After each application, lightly dust with silica sand of 0.3-0.8 mm. For avoiding forming of air bubbles do not excessively dust with sand. Waterproofing: Spray with proper spray equipment which functions by hot method, spraying two components under high pressure. The equipment used should be capable to provide correct pressure and temperature along the length of the appropriate hose
Cleaning of tools	Clean tools and equipment, used for application of the product, immediately after using them with Dissolvent DIMETIL and hoses - with Dissolvent DOP. After hardening, the material can be removed only by mechanical means.

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WAITING TIME AND REPAINTING

Waiting time	Before applying Polyurea Eurotaff AR HG31 over primer it is necessary to wait:		
	Temperature of the surface	Minimum	Maximum
	+10 °C	24 hours	48 hours
	+20 °C	20 hours	
	+30 °C	16 hours	
Before applying Polyurea Eurotaff AR HG31 over the primer (taking into consideration that any dust residues or other contaminators were removed) it is necessary to wait until it has a mordant texture. The period of time is approximate and can be affected by changes in the environment conditions, in particular, by the temperature and the relative humidity of the air.			
Application and restrictions	<p>This product should be applied only by expert specialists. The application is to be implemented only by a two-component spray equipment which functions by hot method. The properties and behaviour of Polyurea Eurotaff AR HG31 are not affected by the exposure to UV radiation. Polyurea Eurotaff AR HG31 can sustain esthetic discoloration under exposure to UV radiation. Note: always make a testing first.</p>		

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INFORMATION ON CURING

Applied product Ready for use	From 2 min to 24 hours. The period of time is approximate and can be affected by changes in the environment conditions, especially by the temperature, relative humidity of the air.
Note	All technical data provided in this Product Information Leaflet is based on laboratory tests. Real values of this data can variate due to circumstances out of our control.
Local restrictions	It should be taken into consideration that performance of this product can variate from one country to another as a consequence to specific local regulations.
Safety and hygiene instructions	For any information related to the issues on safety of using, handling, storing and eliminating residues of chemical products, the users should refer to the recent edition of the Leaflet on Safety of the product, which contains physical information, ecological and toxicological data and other issues related to safety.

LEGAL NOTES

This information, in particular, recommendations relative to application and final use of the product are given in a good faith. They are based on actual know-how and experience of Eurotaff Formulaciones with the product when it is correctly stored, managed and applied at normal situations within its service life according to recommendations of Eurotaff Formulaciones.

At practice, possible differences in the materials, surface and real conditions under which the product applied, could not be deducted either from the information of the present document, or from any other written recommendation, from proposed advice, from any guarantee in terms of commercialization and adequacy for particular purposes and from any obligation outside of legal relationship that can exist.

The user of the product should implement tests for verifying its compliance with the proper usage that is planned to be provided to him. Eurotaff Formulaciones reserves the right to change the properties of the product. The rights for property of the third party should be respected. All orders are received according to terms of our valid General Conditions of Sales and Supply.

The users should know and use recent and updated version of the Leaflet on Local Product Information, copy of which will be sent to the person who requested it or could be found on the webpage www.eurotaff.com