POLYUREA FLOOR COATING

Two-component polyaspartic paint of aliphatic polyurea

QUALITY CONTROLLED
CE
EN 1504-2

PROPERTIES

Advanced new technology, highly durable and of low odor white or colored, two-component polyaspartic paint of aliphatic polyurea (cold cure polyuria) for floors. It presents powerful adhesion to sound surfaces; it creates a uniformed and high performance protective flexible membrane with long-lasting resistance to UV radiation, and excellent resistance to mechanical and chemical stresses. Exceptionally durable against abrasion, acids and alkalis.
Classified as product for surface protection of concrete surfaces per EN 1504-2.

ADVANTAGES

- Zero water absorption.
- Easy and quick application.
- Excellent workability and coverage.
- Flexible but also hard surface.
- Highly durable against UV radiation, does not yellow over time and does not chalk.
- Dries quickly, even at low temperatures.
- Maintains its mechanical strength at temperatures from -40°C up to +90°C.
- Waterproofs capillary cracks on walls and floors.
- Excellent resistance to mold and algae formation.
- Durable against atmospheric pollution.
- High resistance to abrasion and scratches.

POLYUREA FLOOR COATING has many advantages over the other floor coating solutions, as it is easy to apply, dries quickly, requires less time before delivered to use, and maintains its color(s) unchanged over time.

APPLICATIONS

DUROSTICK'S POLYUREA FLOOR COATING is ideal for the protection, painting, and decoration of new concrete surfaces or surfaces already painted with epoxy or other paint systems, as long as they are well bonded to the substrate. It is also applied to vertical, unpainted surfaces. Particularly suitable for frequently used commercial spaces, car repair shops,

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garages, logistic warehouses, and generally heavy traffic areas, where strong mechanical strength is required. It is applied to interior and exterior spaces.

USE

1. Surface preparation

The careful preparation of it substrate is crucial for the final result. In order to ensure great grip of the POLYUREA FLOOR COATING, the surface must be sound, flat, clean, and free from dust, oils, rust, and loose paint. Remove existing peeling paint, chalking epoxy paints, cement residues, moss, and fungi by sanding. Clean with a hard broom or high performance shop vacuum. For filling gaps and repairing surface imperfections and cracks, use the appropriate repair products of DUROSTICK. The humidity of the substrate before application should not exceed 4%. The concrete grade must be at least C25/30. The cement percentage in screeds must be 350kg/m³ and at least 30 days must have passed from their manufacture. Absorbent surfaces are stabilized with a water-based epoxy primer WATERPROOF EPOXY PRIMER AQUA, diluted 10% with water. Painted surfaces with existing, but well-anchored coating(s), have to be lightly sanded, thoroughly cleaned and they must be primed with WATERPROOF EPOXY PRIMER AQUA, before the application of POLYUREA FLOOR COATING.

2. Application

Allow for 6-24 hours (depending on the foot traffic and weather conditions) to pass from the primer application. Thoroughly mix the two components at the predetermined mixing ratio. Mix component A before mixing it with component B. Empty the contents of container B into container A and mix for up to 2 minutes with a low rpm electric mixer, until complete homogenization of the mixture occurs. Apply without dilution in one to two coats, with a roller. Apply the following coat once the previous one has dried, within 12 hours. This application yields smooth surfaces.

USEFUL TIPS - NOTES

- Avoid applying the product in thicknesses over 0.5mm thick per coat.
- Low ambient temperatures slow down the curing process, while high temperatures speed it up.
- Avoid applying the product in high humidity conditions (> 75%), or if there is a chance of rain for the next 12 hours.
- Do not wash the substrate with water before the application.
- Obtains full mechanical strength 7 days from the application of the final top coat.
- Avoid reworking the roller over freshly painted surfaces. Use a short-pile mohair roller, suitable for varnish and epoxy paints. For each new container, it is best to use a new roller (approximately after 35 minutes of use).
- Once the product is cured, any application residues can be removed only by mechanical means.
- For the creation of slip-resistant/antiskid surfaces on ramps or other places where slip prevention is necessary for the safety of employees/workers, it is recommended to add ANTISLIP ADDITIVE POWDER into the first coat of application of POLYUREA FLOOR COATING.

CLEANING

Clean all tools with THINNER 201 of DUROSTICK, immediately after use.

CONSUMPTION

170gr/m²/coat, on properly prepared surfaces.

STORAGE

Component A: Store in closed containers, in places protected from frost, moisture and solar radiation, for 18 months from production date.

Component B: Store in places protected from frost, humidity and sun, for 9 months from production date, and if it remains in its original hermetically sealed packaging.

SAFETY DIRECTIONS

Component A: The product is classified as an irritant and harmful. It is recommended to keep away from the reach of children. Before use, refer to the cautions on the product packaging or the Safety Data Sheet.

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Component B: The product is classified as harmful. It is recommended to keep away from the reach of children and apply in well-ventilated areas. Before use, refer to the cautions on the product packaging or the Safety Data Sheet.

■ PACKAGING

5kg container (A: 4kg, B: 1kg)
10kg container (A: 8kg, B: 2kg).

TECHNICAL CHARACTERISTICS (Measuring conditions 23˚C and 50% R.H.)	
■ **Chemical base**	Two-component aliphatic polyaspartic polyurea
■ **Colors**	
• **WHITE**	
• **RAL 7032**	Sand grey
• **RAL 7035**	Light grey
• **RAL 7040**	Grey
• **RAL 3009**	Oxide red
• **RAL 1015**	Beige
• **RAL 1013**	Light beige
• **RAL 6021**	Pale green
• **RAL 5024**	Pastel blue
■ **For additional RAL colors, please contact the company**	
■ **Density of mixture**	1.50±0.05kg/lt
■ **Mixing ratio A:B**	4:1 by weight
■ **Working time**	35 minutes at 23˚C
■ **Foot traffic**	After 6 hours, depending on weather conditions (temperature, humidity)
■ **Full cure**	7 days
■ **Application temperature**	From +3˚C to +35˚C
■ **Temperature resistance**	From -40˚C to +90˚C
■ **Capillary absorption and permeability to water**	0.006kg/m^2·h$^{0.5}$ (EN 1062-3, requirement EN 1504-2: w< 0.1)
■ **Permeability S_D to CO_2 per EN 1062-6 (method A)**	S_D >50mm • Permeability to water vapour S_D per EN ISO 7783-2: S_D = 2.49m [**class I**, (S_D <5m)]
■ **Adhesion to concrete per EN 1542**	2.5 N/mm² (requirement for flexible systems with no traffic: 0.8 N/mm²)
■ **Impact resistance (EN ISO 6272-1)**	20Nm (**class III**)
■ **Shore A hardness (ASTM D 2240)**	>70
■ **Shore D hardness (ASTM D 2240)**	>30
■ **Hydrolysis (5% KOH, 7 days)**	No significant change in flexibility
■ **Chemical resistance**	Good: Acidic and alkaline solutions (5%), common detergents, oils and seawater

V.O.C. (Volatile Organic Compounds):
Limit value of maximum V.O.C. content per EU (Directive 2004/42/CE) for this product (category A/j: 'Two-pack performance coatings', Type SB): 500gr/lt (2010). The ready to use product contains maximum 180gr/lt V.O.C.

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