



Neodur®

Multi-purpose, aliphatic polyurethane coating



Description

Two-component aliphatic polyurethane top coat paint, ideal for the protection of exterior metallic surfaces, as well as substrates made of wood, cement, polyester, etc.

Fields of application

- Exterior and interior metallic surfaces
- Rigid wooden surfaces
- Marine applications (e.g. polyester boats above water level)



Packing

Sets (A+B) of 10kg*, 5kg* and 1kg
*Available in white shade

Properties - Advantages

- Long-lasting resistance to solar radiation and yellowing
- Excellent protection against freshwater and sea water, alkalis, industrial atmosphere and adverse weather conditions
- High hardness and abrasion resistance
- Excellent adhesion on various construction substrates
- Gloss retention
- Wide range of applications
- Certified as cool material (in its white colour shade)

Colours

WHITE	RAL 9005
RAL 3009	RAL 5013
RAL 9010	RAL 7040
RAL 5015	RAL 6009

Certificates – Test reports

- CE certification acc. to EN 1504-2
- Certified cool material by the University of Athens
Evaluation of the optical properties conducted by the National and Kapodistrian University of Athens – Physics Dept.
- Test report by the external independent quality control laboratory Geoterra (No. 2021/483_10)
- Complies with the V.O.C. content requirements acc. to the E.U. Directive 2004/42/CE





Technical characteristics

Mixing ratio A:B (by weight)	87:13
Density (EN ISO 2811-1)	1,28kg/L (±0,1)
Gloss (60°)	92
Adhesion strength (EN 1542)	>2,5N/mm ²
Flexibility (ASTM D522, 180° bend, 1/8" mandrel)	Pass
Scratch hardness (Sclerometer Test - Elcometer 3092)	4N
Liquid water permeability (EN 1062-3)	<0,1kg/m ² h ^{0,5}
Permeability to CO ₂ – Diffusion-equivalent air-layer thickness Sd (EN 1062-6)	>50m
Water vapour permeability – Diffusion-equivalent air-layer thickness Sd (EN ISO 7783)	>5m (Class II)
Resistance to temperatures (dry loading)	-30°C min. / +80°C max.
Total Reflectance SR% (ASTM E903-96)	88% (white)
Infrared Emittance (ASTM E408-71)	0,86 (white)
Solar Reflectance Index SRI ASTM E1980-01)	111 (white)
Consumption: 150gr/m² per layer	

Application conditions

Substrate moisture content	<4%
Relative air humidity (RH)	<65%
Application temperature (ambient - substrate)	+12°C min. / +35°C max.

Curing details

Pot life (+25°C, RH 50%)	1 hour
Dry to recoat (+25°C, RH 50%)	12 hours
Full hardening	~ 7 days

** Low temperatures during application and/or curing prolong the above times, while high temperatures and high humidity reduce them*



Appropriate primers on usual substrates		
Substrate	Primer	Description - Details
Metal (iron, steel)	Neopox® Primer 815	Two-component, anticorrosive solvent-based epoxy primers suitable for metallic surfaces
	Neopox® Special Primer 1225	
Stainless steel, aluminium, galvanized	Neotex® Inox Primer	One-component, water-based primer, ideal for inox, aluminium, galvanized surfaces
Concrete, cement screed	Epoxol® Primer	Two-component solvent-based epoxy primer

Instructions for use

Substrate preparation

Metallic surfaces (iron – steel)

The metallic surfaces must be properly prepared by sandblasting or sanding with a wire brush and should be dry, free of dust, dirt, greasy and oily substances, as well as any poorly adhering coatings. In rusty areas, it is recommended to locally apply the chemical rust converter **Neodur® Metalforce**. New metallic surfaces should be degreased with solvent **Neotex® 1021**.

Cementitious surfaces

The cementitious substrate must be properly prepared mechanically (e.g. grinding, shot blasting, milling etc.) to smooth out the irregularities, achieve an open- textured surface and ensure optimum adhesion. The substrate must be stable, clean, dry & protected from rising moisture, as well as free of dust, oil, grease, dirt, moss and any loose or poorly adhering material. Loose friable material must be fully removed by brushing or sanding with a suitable machine and a high suction vacuum cleaner. The surface must be as smooth and flat as possible, as well as continuous (ie without voids, cracks etc.)

Priming

In case of iron or steel surfaces, and for their protection against corrosion, as well as for improving the adhesion of the polyurethane coating that follows, it is recommended to apply the anti-corrosive epoxy primer **Neopox® Special Primer 1225** or **Neopox® Primer 815** in one or multiple layers, depending on the application. Depending on the substrate, an alternative **NEOTEX®** primer may be applied (see table). In cases of substrates with increased porosity, an additional priming layer may be required.

Application

After the primer is dry to overcoat, **Neodur®** is applied diluted 5-10% with solvent **Neotex® 1021**, by roller, brush or airless spray in 1-2 or more layers.

The two components A & B are mixed in the predetermined ratio (87A : 13B w/w) and, after the addition of the solvent, they are mechanically stirred for app. 3-5 minutes with a low-speed stirrer. It is important to stir thoroughly both near the sides and at the bottom of the container, so that the hardener (component B) is evenly distributed. The mixture is left for a short time in the container (~1-2 minutes) and then applied. Prior to mixing, mechanical stirring of component A is recommended.



Special notes

- **Neodur®** should not be applied under wet conditions, or if wet conditions or rainy weather are expected to prevail during the application or the curing period of the product
- The components must not be stored in very low or very high temperatures, especially before their mixing. Preferably, the mixing and stirring of the mixture is recommended to be done in the shade. The stirring must be done mechanically and not manually with rods etc.
- It is recommended not to over-stir the product, in order to avoid air entrapment in the mixture. After the stirring of the mixture, it is recommended to apply it immediately in order to prevent high temperatures and its polymerization inside the container
- The substrate temperature must be at least 3°C above dew point to reduce the risk of condensation or blooming on the floor finish
- In case that an extended period of time (>36 hours) has passed between successive layers, it is recommended to lightly sand the surface of the previous layer, in order to avoid possible adhesion problems of the next layer

Appearance (cured)	Glossy
Colours	White, Light beige RAL 1010, Grey RAL 7040, Terracota RAL 3009, Black RAL 9005, Dark blue RAL 5013, Light blue RAL 5015, Green RAL 6009 Available in other shades also upon special arrangement
Packing	Sets (A+B) of 10kg*, 5kg* and 1kg in metal cans <i>*Available in the white shade</i>
Cleaning of tools – Stains removal	By Neotex® 1021 immediately after application. In case of hardened stains, by mechanical means
Volatile organic compounds (V.O.C.)	V.O.C. limit acc. to the E.U. Directive 2004/42/CE for this product of category AjSB: 500g/l (Limit 1.1.2010) - V.O.C. content of the ready-to-use product <500g/l
UFI code	<i>Component A: W160-P0K6-A00S-4YJM Component B: JM30-H082-R00X-ME7T</i>
Storage stability	<i>Component A: 2 years, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight Component B: 1 year, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight</i>



CE	
NEOTEX S.A. V.Moira str., P.O. Box 2315 GR 19600 Industrial Area Mandra, Athens, Greece 22	
DoP No.: 4950-70 EN 1504-2 Neodur® Surface protection products Coating	
Water vapour permeability	Class II
Adhesion strength	$\geq 1,5\text{N/mm}^2$
Capillary absorption and permeability to water	$W < 0,1\text{Kg/m}^2\text{h}^{0,5}$
Permeability to CO ₂	$S_D > 50\text{m}$
Reaction to fire	Euroclass F
Dangerous substances	Complies with 5.3

The information supplied in this datasheet, concerning the uses and the applications of the product, is based on the experience and knowledge of NEOTEX® SA. It is offered as a service to designers and contractors to help them find potential solutions. However, as a supplier, NEOTEX® SA does not control the actual use of the product and therefore cannot be held responsible for the results of its use. As a result of continual technical evolution, it is up to our clients to check with our technical department that this present data sheet has not been modified by a more recent edition.

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