ExoShield 600 6D600

Series 6D600 · Solvent-free 2K PUR high-build protection for bulk-freight wagons

01 PRODUCT DESCRIPTION

ExoShield 600 6D600 is a solvent-free, two-component polyurethane liquid coating for high-build corrosion protection under severe abrasive loads. It is primarily intended for coating bulk-freight wagons, but is equally suitable for the storage and transport of further highly abrasive materials such as coke, salt or ore – whether in a wagon or in other containers and applications. The coating features very high abrasion resistance and can be applied as a high-build system with film thicknesses of up to 1,000 µm (dry film thickness) per coat. It provides good adhesion to metallic and mineral substrates and is suitable for spray application, enabling efficient processing. ExoShield 600 6D600 is repairable and recoatable, thus ensuring economical maintenance and long-term protection even under highly demanding service conditions.

02 PRODUCT PROPERTIES

Binder system	Polyurethane
Hardener system	PUR Hardener 7D055
Cleaning thinner	Superdur Thinner 5D402
Characteristics	Solvent-free · Highly abrasion-resistant · High-build · Good adhesion · Repairable & recoatable
Color shade	Black, yellow (further color shades on request)
Gloss	Glossy
Shelf life	12 months in the unopened original container at +4 °C to +40 °C; protect from frost and moisture.
Mechanical resistance	Shore D hardness: 55
Chemical resistance	Permanently resistant to fresh water, salt water and household cleaners; splash-resistant to petrols, heavy oils and aromatic hydrocarbons (further media on request)
Electrical resistance	At 1,000 µm: > 10 GΩ
Abrasion resistance	To ASTM D 4060: 55 mg CS10 / 1000 g / 1000 rev.

Property	Comp. A	Comp. B	Mixture
Density · DIN EN ISO 2811-1 · +20 °C *¹	Approx. 1.22 g/cm³	Approx. 1.23 g/cm³	Approx. 1.22 g/cm³
VOC content · IE Directive 2010/75/EU *¹	Approx. 18.30 g/l	Approx. 0 g/l	Approx. 13.07 g/l
Solid content (wt.-%) · SDS *¹	Approx. 98.5 %	Approx. 100 %	Approx. 98.9 %
Viscosity · DIN EN ISO 2555 / ISO 2431 · +20 °C *¹	Approx. 20,000 mPas	Approx. 60 s (4 mm)	Approx. 8,000 mPas

*¹ *Depending on color shade*

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03 APPLICATION

The following information may vary depending on the application. Please contact your direct contact person for more detailed information.

Substrate	Steel, zinc/aluminium, cement concrete/screed (further substrates on request)
Surface preparation	Ensure sufficient load-bearing capacity before application. **Steel:** Surface preparation to EN ISO 12944-4. Free from weld spatter, pores, overlaps, burrs, grease, oil and dirt. Blast-clean to Sa 2½, mean roughness Rz approx. 50–70 µm (G or operating mix GS). Primer: 1 × 60 µm Superdur Unigrund, consumption approx. 174 g/m² at 60 µm DFT. **Zinc/aluminium:** Clean and sweep-blast. Primer: 1 × 30 µm Tenaxon T 569, consumption approx. 100 g/m² at 30 µm DFT. **Cement concrete/screed:** Surfaces must be firm, clean, free from grease, oil, wax, sand, dust and release agents, with good grip, load-bearing and free from standing water. **Optional** primer: Steopox 220, consumption approx. 300–500 g/m² depending on absorbency; if required, broadcast with kiln-dried quartz sand 0.1–0.3 mm.
Mixing ratio	100 : 40 by weight | 100 : 40 by volume
Mixing	Stir both components separately and homogenise if necessary. Pour component B into the container of component A and mix with an electric stirrer for at least 3 min at max. 700 rpm. Transfer into a clean container and mix again thoroughly for approx. 1 min.
Theoretical consumption	122 g/m² per 100 µm WFT | 122 g/m² per 100 µm DFT
Film thickness	Max. 1,000 µm DFT | max. 1,000 µm WFT per coat
Application method	Airless spraying Brush / block brush
Application conditions	**Air temperature** > 0 °C **Relative humidity** max. 80 % **Surface temperature** min. +5 °C **Dew point** min. 3 °C below surface temperature For airless spraying: material and equipment temperature +20 °C to +25 °C.
Pot life[*2]	Approx. 20 min
Working time[*2]	Approx. 20 min
Recoating interval (with itself)[*2]	Max. 48 h. After the maximum recoating time has elapsed, mechanical surface preparation (e.g. sanding or sweep-blasting) is required.
DRYING	
Dust-dry (TG 1)	Approx. 4 h at +20 °C | approx. 5 h at +10 °C
Walkable / sandable	Approx. 12 h at +20 °C | approx. 18 h at +10 °C
Fully cured (mech. & chem.)	Approx. 7 days at +20 °C | approx. 21 days at +10 °C

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Compatible systems	Primer: Superdur Unigrund (3D800) Primer: Tenaxon T 569 (3E569) Primer: Steopox 220 (2E220) Further applications on request.

[2] Values are based on laboratory measurements at +20 °C. Lower temperatures slow down drying; higher temperatures accelerate it.

04 NOTE

This product data sheet supersedes all previously published product data sheets. The information contained herein is based on practical experience under standard conditions and assumes proper storage and processing. Substrates, materials and working conditions may vary. Therefore, no warranty or liability can be derived from the information contained in this document or from verbal consultation. It is the buyer's responsibility to verify the product's suitability for the intended use. Preliminary trials are recommended. The relevant legal regulations, the leaflets of the BG RCI and the accident prevention regulations of the responsible employers' liability insurance association must be observed. In all other respects, our General Terms and Conditions of Sale and Delivery apply.

MODIFIED BY
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