Steodur ET 302 6D502-ET

Series 6D502 · Solvent-free 2K PUR external coating for earth-covered steel tanks

01 PRODUCT DESCRIPTION

Steodur ET 302 6D502-ET is a high-performance, solvent-free two-component polyurethane developed specifically for the wear-resistant corrosion protection of earth-covered steel tanks. The pigmented formulation provides a seamless, robust coating with excellent adhesion and high resistance to mechanical loads from the surrounding soil. Thanks to direct application to steel without a primer and fast curing, the system is ideal for economical processing. The coating reliably protects against moisture, chemical exposure and undermining by cathodic processes – ideal for underground gas storage facilities. Damage and defects can be repaired on site with the cartridge-based repair solution Bergolin SmartRepair ExoLine (6D6000, touch-up kit).

02 PRODUCT PROPERTIES

Binder system	Polyurethane
Hardener system	PUR Hardener 7D055
Cleaning thinner	Superdur Thinner 5D402
Characteristics	Solvent-free Abrasion- & mech. resistant Chemicalresistant Ultra-fast curing Repairable (touch-up kit) Direct-toMetal
Color shade	Yellow (further color shades on request)
Gloss	Glossy
Shelf life	Approx. 12 months in the unopened original container at +4 °C to +40 °C; protect from frost and moisture.
Mechanical resistance	Shore D hardness: 80
Chemical resistance	Permanently resistant to fresh and salt water; splash-resistant to petrols, heavy oils and aromatic hydrocarbons (further media on request)
Dielectric strength	> 25 kV/mm
Electrical resistance	At 1,000 µm: > 10 GΩ
Approvals and specifications	Tested to DIN EN 12542 Annex J (external corrosion protection coating with special resistance to chemical and mechanical influences) Tested to DIN EN 60243-1 (dielectric strength) Under testing to DIN EN ISO 12944-6, corrosivity category Im3 (very high) Complies with DIN EN 12285-1 (factory-made steel tanks)

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Property	Comp. A	Comp. B	Mixture
Density · DIN EN ISO 2811-1 · +20 °C *1	Approx. 1.29 g/cm³	Approx. 1.23 g/cm³	Approx. 1.27 g/cm³
VOC content · IE Directive 2010/75/EU *1	Approx. 0 g/l	Approx. 0 g/l	Approx. 0 g/l
Solid content (wt.-%) · SDS *1	Approx. 100 %	Approx. 100 %	Approx. 100 %
Viscosity · DIN EN ISO 2555 / ISO 2431 · +20 °C *1	Approx. 3,600 mPas	Approx. 60 s (4 mm)	–

*1 *Depending on color shade*

03 APPLICATION

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

Substrate	Steel (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). Direct application to steel without a primer (DTM).
Mixing ratio	100 : 40 by weight | 2.5 : 1 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	127 g/m² per 100 µm WFT | 127 g/m² per 100 µm DFT
Application method	2K hot spraying Equipment parameters (2K hot spraying): Material temp. comp. A: approx. +50–70 °C Material temp. comp. B: approx. +20–40 °C Mixture at nozzle: approx. +55–65 °C Hose heating: approx. +50 °C Unit: 2K hot-spray – high-pressure (e.g. Graco XP 70 / XM 70) or low-pressure (e.g. Wima PSL) Nozzle: 0.48–0.64 mm Spray angle: 40–60° Hose length: max. 20 m (3/8″) Mixing section: max. 1.5 m (1/4″) Static mixer (at gun): > 30 mixing elements

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Application conditions	**Air temperature** > 0 °C **Relative humidity** max. 80 % **Surface temperature** min. +5 °C **Dew point** min. 3 °C below surface temperature
Pot life[*2]	Approx. 120 s
Working time[*2]	Approx. 120 s
Recoating interval (with itself)[*2]	Min. as soon as the coating is load-bearing | max. 48 h.
DRYING[*2]	
Dust-dry (TG 1)	Approx. 90 min
Fully dried (TG 7)	Approx. 240 min
Fully cured (mech. & chem.)	Approx. 7 days
Compatible systems	Repair: Bergolin SmartRepair ExoLine (6D6000) 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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APPROVED BY
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