

TECHNICAL BULLETIN

TOPLINE 505 FOR STEEL

Product Description:	TOPLINE 505 is a three component, powder filled, epoxy lining system. This system consists of one moisture tolerant primer @ 50 µm nominal, one trowel applied body coat, a 300 g/m ² fibreglass cloth as reinforcement and one trowel applied topcoat to produce a total DFT of 3.0 – 4.0 mm nominal. It is developed for protection of concrete and steel surfaces.
Recommended Uses:	This high performance lining system provides excellent resistance against caustics along with good general corrosion resistance. It is particularly well suited for clarifiers, thickeners and storage tanks.
Temperature Resistance:	+ 80 °C Immersion, Constant Flow
Generic Type:	Epoxy
Filler:	Silica
Design:	DIN 28051 and DIN 28053
Preparation:	Contaminants such as oil or grease must be removed prior to the grit blasting. The substrate shall be prepared by abrasive blasting to obtain a Sa 2½ surface, as defined in DIN EN ISO 12944-4 and a minimum surface profile @ 60 µm "Medium (G)" as defined in DIN EN ISO 8503-2.
Build-up of the System:	<p>Consumption</p> <p>COROFLAKE 68 Primer Resin and Hardener 150 g/m²</p> <p>TOPLINE 505 Body coat Resin and Hardener 1.000 g/m²</p> <p style="padding-left: 40px;">F-1 Filler 2.400 g/m²</p> <p>TOPLINE 505 Resin and Hardener 660 g/m²</p> <p>Reinforcement Glass Cloth 316 g/m² 330 g/m²</p> <p>TOPLINE 505 Topcoat Resin and Hardener 1.000 g/m²</p> <p style="padding-left: 40px;">F-1 Filler 2.400 g/m²</p>
Mixing Ratio:	For primer resin, 12 : 3.6 and for TOPLINE 505 resin 20:2.2 to hardener by weight. Mix hardener into resin using a low speed mechanical agitator. For body coat and topcoat, stir 2400 g of the silica filler slowly into the 1000 g of the mixed resin until its a well-dispersed semi-thixotropic mortar.
Pot Life:	3 hrs. (+ 10 °C) 2 hr. (+ 20 °C) ½ hr. (+ 30 °C)
Application Method:	By Trowel and Roller



Application: Note: During application the lined surface must be shaded from direct or indirect sunlight. Intercoat disbondment may otherwise occur.

The minimum substrate and air temperature shall be at +8°C to + 36°C. (3 K above dew point). All relevant surfaces should be troweled with the mixed mortar as evenly as possible to achieve a uniform thickness at 1.5 mm. Press the glass cloth into the body coat, then saturate and roll with the mixed resin until the cloth has lost white colour. Allow to cure. The topcoat should be applied in the same manner as the body coat. Roll topcoat with xylene after spreading, to remove trowel marks and other unevenness.

Cleaning: Solvent T-100

Shelf Life: The shelf life is 12 months when stored at +20°C.

The lining liquid, primer and hardener should be stored in cool and dry places.

Density: 1.85 kg/l (with Filler)

Viscosity: semi thixotrop

Flash Point: TOPLINE 505 Resin + 42 °C and Hardener No. 6 + 118 °C

Modulus of Elasticity: 6000 – 8000 MPa (DIN EN ISO 178)

Tensile Strength: 15 - 20 MPa (DIN EN ISO 527)

Compressive Strength: 70 - 90 MPa (DIN EN ISO 604)

Coefficient of Expansion: 27 - 30 x 10⁻⁶ 1/°C (ASTM D 696-90) linear

Abrasion Resistance: 70 mg (ASTM D 4060)

Adhesion: 7 MPa (EN ISO 4624)

Hardness: 30 Barcol (DIN EN 59)

This Technical Bulletin is for informational purposes only. All data provided herein is based on in-depth research and testing, however no liability whatsoever can be assumed. Since we are constantly endeavouring to up-date and improve our products, we recommend noting the index and issue date indicated on this data sheet and to inquire as to whether any properties have changed in the interim. This Product Information Sheet replaces all prior issues. Please contact our Technical Consultant for detailed information in case of ambiguities.

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Tip Top Oberflächenschutz Elbe GmbH Seite: 2/2	TOPLINE 505 Lining for Steel - ATM	INDEX A vom 15.03.2004 ersetzt Ausgabe01.10.02:
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