



TECHNICAL BULLETIN

TOPLINE 510 for STEEL

- Product Description:** TOPLINE 510 is a heavy duty epoxy lining system. The system has several components: TOPLINE 505 Resin, Hardener No.6, and two different powders for the body coat and the topcoat, which are mixed together before use. This system consists of one moisture tolerant primer, one trowel applied silica filled body coat, a 316 g/m² fibreglass cloth as reinforcement and one trowel applied carbon filled topcoat to produce a total DFT of 3.0 – 4.0 mm nominal.
- Recommended Uses:** This high performance lining used primarily as electrically conductive system for areas where static electricity must be eliminated. Also used as a tank lining in areas of very high caustic conditions that could attack a silica filler.
- Temperature Resistance:** + 80 °C Immersion, Constant Flow
- Generic Type:** Epoxy
- Filler:** Silica, Carbon
- 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:**
- | | | | Consumption |
|---------------------------|--|--|--|
| COROFLAKE 68 Primer | Resin and Hardener | | 150 g/m ² |
| TOPLINE 505 Body coat | Resin and Hardener
F-1 Filler | | 1.000 g/m ²
2.400 g/m ² |
| TOPLINE 505 Reinforcement | Resin and Hardener
Glass Cloth 316 g/m ² | | 660 g/m ²
330 g/m ² |
| TOPLINE 505 Topcoat | Resin and Hardener
Carbon - Filler | | 1.000 g/m ²
2.000 g/m ² |
- Mixing Ratio:** For COROFLAKE 68 Primer resin, 12 : 3.6 to Hardener No.4 and for TOPLINE 505 resin 20:2.2 to Hardener No. 6 by weight. Mix hardener into resin using a low speed mechanical agitator. For body coat, stir 2,500 g of the silica filler and for the topcoat 2,000 g carbon filler slowly into the 1,000 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:	<p>Note: During application the lined surface must be shaded from direct or indirect sunlight. It may result in intercoat disbondment.</p> <p>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.</p>
Cleaning:	Solvent T-100
Shelf Life:	<p>The shelf life is 12 months when stored at +20°C.</p> <p>The lining liquid, primer and hardener should be stored in cool and dry places.</p>
Density:	1.85 kg/l (with Filler)
Viscosity:	semi thixotrope (mixed)
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
Electrical properties:	0 to 200,000 ohms typically 500 to 10, 000 (MEGGAR READING, 3ft. Span)
Abrasion Resistance:	90 mg (ASTM D4060)
Adhesion:	4 MPa (EN ISO 4624)
Hardness:	70 Shore D (DIN 5305)

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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