

TECHNICAL BULLETIN

TOPLINE 665 FOR STEEL

- Product Description:** *TOPLINE 665* is a three component, powder filled Novolac-vinyl ester lining system. This system consists of one trowel applied body coat, a 300 g/m² fibreglass mat as reinforcement and a trowel applied special filled resin topcoat to produce a total DFT of 3.0 – 4.0 mm nominal.
- Recommended Uses:** This high performance lining system possesses outstanding resistance to a wide range of aggressive environments such as strong acids, for many solvents, chlorinated aromatics and aliphatics. *TOPLINE 665* also has good chemical resistance to alkalis.
- Temperature Resistance:** + 75 °C wet
- Generic Type:** Novolac Vinyl Ester
- Filler:** Silica
- Solvent:** Styrene (reactive)
- Design:** The steel construction to be coated must be fabricated according to the DIN EN 14879-1:2005. Further information can be taken from our steel specification documents.
- Preparation:** Steel
Steel substrates which were under service conditions already, require a chemical check for the presence of invisible traces of iron sulphate and or iron chloride. If the check is positive, the total surface area needs to be washed down thoroughly with de-ionised water. In each case, steel substrate shall be prepared by abrasive blasting to obtain a Sa 2½ surface, as defined in DIN EN ISO 12 944-4 and a minimum surface profile @ 60 µm "Coarse (G)" as defined in DIN EN ISO 8503-2.
- Build-up of the system:**
- | | | Coverage |
|----------------------------------|--|--|
| COROFLAKE N PRIMER | Liquid + HARDENER No. 1 | 150 g/m ² |
| <i>TOPLINE 665</i> Body Coat | Liquid + HARDENER No. 1
F-1 Filler | 1,000 g/m ²
2,500 g/m ² |
| <i>TOPLINE 665</i> Reinforcement | Liquid + HARDENER No. 1
Glass mat 300 g/m ² | 660 g/m ²
330 g/m ² |
| <i>TOPLINE 665</i> Topcoat | Liquid + HARDENER No. 1
F-1 Filler
Smoothing Liquid F-12 | 1,000 g/m ²
2,500 g/m ²
150 g/m ² |
- Mixing Ratio:** 100:2 resin to hardener by weight. Mix hardener into liquid using a low speed mechanical agitator. For body coat and top coat stir 2,500 g of the F-1 Filler slowly into the 1,000 g of the mixed resin until it becomes a well-dispersed semi-thixotropic mortar.



Pot Life:	1 ½ hrs. (+ 10 °C)	1 hr. (+ 20 °C)	½ hr. (+ 30 °C)
Application Equipment:	By Trowel and Roller.		
Application:	During application observe pot life limitations. Note: During application the lined surface must be shaded from direct or indirect sunlight. Otherwise intercoat disbondment may occur. Refer to the application instruction for further hints.		
Cleaning:	Solvent T-100		
Shelf Life:	The shelf life is 6 months when stored @ + 20 °C. The lining liquid, primer and hardener should be stored in cool and dry places.		
Density:	1.85 kg/l (mixed with filler)		
Viscosity:	semi thixotropic		
Flash Point:	TOPLINE 665	+ 32 °C and	
	HARDENER No. 1	+ 70 °C	
Modulus of Elasticity:	7,000 – 10,000 MPa (DIN EN ISO 178) flexural		
Tensile Strength:	20 MPa (DIN EN ISO 527)		
Compressive Strength:	85 MPa (DIN EN ISO 604)		
Coefficient of Expansion:	27 - 30 x 10 ⁻⁶ 1/°C (ASTM D 696-90) linear		
Abrasion:	70 mg (ASTM – D 4060)		
Permeation:	0.0031 perm-inch (ASTM – E 96 - 90 Procedure E)		
Adhesion:	7.0 N/m ² (EN ISO 4624) on grit blasted steel		
Hardness:	35 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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