



TECHNICAL BULLETIN

Corrosion – Resistant Protective Lining Coroflake 27 M – Reinforced Vinylester Lining

Product Description:

Coroflake 27 M is a three component, powder filled, mat reinforced novolac vinylester lining system. This system consists of one trowel applied body coat, one 300 g/m² fibreglass mat as reinforcement and a flake filled topcoat to produce a total DFT of 2.5 mm nominal.

Recommended Uses:

This high performance lining system possesses outstanding resistance to a wide range of aggressive environments such as strong inorganic acids, alkalis, most salts and many organic chemicals. This heavy duty lining has successfully provided protection for concrete and steel substrates in aggressive environments. It is especially suitable for extreme temperature drops up to 15k/min.

Temperature Resistance:

+ 80°C Immersion, Constant Flow
+ 140°C Dry

Generic Type:

Modified Novolac Vinylester

Filler:

Silica and Inert Flakes

Solvent:

Styrene

Design:

Steel; DIN 28052 & 28053
Concrete; DIN 28052 TIP TOP "Design and Preparation of Concrete Substrate"

Preparation:

Steel surfaces shall be prepared by abrasive grit blasting to obtain a SA 2½ surface, as defined in DIN EN ISO 12944-4 and show a minimum surface profile of 60µm "Medium (G)" as defined in DIN EN ISO 8503-2

Concrete must be free of oils, curing solutions or other contaminants. Remove laitance by abrasive blasting or other approved mechanical means. If dust is a problem, wet blasting may be used. Allow to dry. The resulting surface should be at least as rough as 40 grit sandpaper. Concrete should be thoroughly cured for at least 28 days. Use plastic sheet method (ASTM 4263) to ensure the moisture content is less as 4%. The cured concrete should have a minimum compressive strength of 25 N/mm² and a minimum surface strength of 1.5 N/mm².



<u>Build-up of the system:</u>	Primer:		Coverage
	Primer N Resin(concrete)	Liquid + Hardener No.1	300g/m²
	Base Coat:		
	Lining 70 BC Resin	Liquid + Hardener No.1	1000g/m²
		F 1 Filler	2400g/m²
<u>Mixing Ratio:</u>	Reinforcement :		
	Lining 70 BC Resin	Liquid + Hardener No.1	750g/m²
		1 Glass mat	330g/m²
	Topcoat:		
	Coroflake 27 Resin	Liquid + Hardener No.1	900g/m²
100 : 2 resin to hardener by weight. Mix hardener into liquid using a low speed mechanical agitator. For body coat, stir 2400 g of F1 filler slowly into the 1000 g of the mixed resin until it becomes a well-dispersed semi-thixotropic mortar.			
<u>Pot Life:</u>	½ hrs. (+10°C)	1 hr. (+20°C)	1/2hr. (+30°C)
<u>Application Method:</u>	By Trowel and Roller		
<u>Application:</u>	<i>Note:</i> During application the lined surface must be shaded from direct or indirect sunlight. Otherwise intercoat disbondment may occur. The minimum substrate and air temperature shall be at +8°C to + 32°C. (3°K above dew point). All relevant surfaces should be trowelled with the mixed mortar as evenly as possible to achieve a uniform thickness at 1.5 mm. Press the glass mat into the body coat, then saturate and roll with the mixed BC resin until the mat has lost white colour. Allow to cure. Apply topcoat by airless-spray.		
<u>Cleaning:</u>	Solvent T /100		
<u>Shelf Life:</u>	The shelf life is 6 months when stored at +20°C. The lining liquid, primer and hardener should be stored in a cool & dry place.		
<u>Density:</u>	BC Resin 1,0 (Mixed)	TC Resin 1,2 (Mixed)	
<u>Viscosity:</u>	200 – 250 mPas	2750 mPas ± 250	
<u>Solid Content:</u>	64+/- 2,5%	74 +/- 1%	
<u>Elongation at Tear:</u>	0.75% (DIN EN ISO 527)		
<u>Flash Point:</u>	BC and TC resin (styrene): +32°C	Hardener: +70°C	
<u>E – Modulus:</u>	6.000 – 8.000 Mpa (DIN EN ISO 178) flexural		
<u>Coefficient of Expansion:</u>	27- 30 x 10 ⁻⁶ /°C (ASTM D – 696)		
<u>Crack bridging</u>	0,2 mm (DfBT – Richtlinie)		
<u>Abrasion:</u>	92 mg (ASTM D – 4060)		
<u>Compressive Strength:</u>	65 N/mm² (DIN EN ISO 604)		
<u>Tensile Strength:</u>	48 N/mm² (DIN EN ISO 527)		



Adhesion : 1,5 N/m² (BS 1881) concrete failure

Hardness: 30 - 40 Barcol (DIN EN 59)

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This Technical Bulletin represents our best knowledge. The Information given here based on our laboratory work and our field experience. We offer this information without any guarantee. Please check for the recent date. For additional information or details contact our local representative.

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