

TECHNICAL BULLETIN

COROFLAKE 28

Product Description:	<i>COROFLAKE 28</i> is a two component, C-glass flake filled Novolac vinyl ester coating system. This coating system consists of one primer @ 50 µm nominal and three coats @ 400 - 600 µm WFT per coat to produce a total DFT of 1,200 µm nominal. The vinyl ester resin provides excellent chemical resistance and firmly bonds the multiple layers of overlapping micron-thick C-glass flakes to achieve an extremely low permeation rate, which greatly reduces water vapour passage through the coating.		
Recommended Uses:	<i>COROFLAKE 28</i> provides the longest lasting, most effective coating system for corrosion prevention in coal-fired power plants where Flue Gas Desulphurization Systems (FGD) has been installed. It has proven performance in Incineration Plants and in the Chemical Process Industry.		
Temperature Resistance:	+ 70 °C wet	+ 180 °C dry	+ 200 °C for 15 min.
Generic Type:	Novolac Vinyl Ester		
Filler:	C-Glass Flakes		
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 substrates, which have been previously been used in service, 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 2" surface, as defined in DIN EN ISO 12 944 Part 4 and a minimum surface profile @ 60 µm "Medium (G)" as defined in DIN EN ISO 8503-2.		
Build-up of the system:	Layer Thickness	Coverage	
	COROFLAKE S PRIMER	1 x 40 - 60 µm	150 g/m ₂
	COROFLAKE 28 Resin	3 x 400 – 600 µm	3 x 900 g/m ₂
Mixing Ratio:	100:2 COROFLAKE Primer or Resin to HARDENER No. 1 by weight. Mix hardener into resin based component, using a low speed mechanical agitator.		
Pot Life:	1 " hrs. (+ 10 °C)	1 hrs. (+ 20 °C)	" hrs. (+ 30 °C)
Application Equipment:	Conventional Air or Airless Spray.		

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Application:	Primer is normally applied by brush or roller. Spray application can be used, but requires extra clean surface. COROFLAKE 28 shall be applied in three coats utilizing an airless or conventional air spray system. The substrate and air temperature shall be @ + 10 °C to + 36 °C (3 K above dew point). Primer may be recoated after initial set, which will occur normally after 4 hours, first coat must be applied within seven days. The following coats should be applied no longer than three days later. Note: During application the coated surface must be shaded from direct or indirect sunlight. Intercoat disbondment may otherwise occur.
Cleaning:	Solvent T-100
Shelf Life:	The shelf life is 5 months when stored below + 20 °C. COROFLAKE 28 Resin, Primer and HARDENER No. 1 should be stored at a cool and dry place.
Density:	1.2 kg/l (mixed)
Viscosity:	2,250 mPas ± 250
Flash Point:	COROFLAKE 28 + 32 °C and HARDENER No. 1 + 70 °C
Modulus of Elasticity:	3,500 – 4,500 MPa (DIN EN ISO 178) flexural
Tensile Strength:	40 Mpa (DIN EN ISO 527)
Elongation at Tear:	0.5 % (DIN EN ISO 527)
Coefficient of Expansion:	27 – 30 x 10 ⁻⁶ 1/°C (ASTM D 696-90) linear
Abrasion:	90 mg (ASTM – D 4060)
Permeation:	0.001 perm-inch (ASTM – E 96 - 90 Procedure E)
Adhesion:	7 N/mm ₂ (EN ISO 4624) to grit blasted C-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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