TECHNICAL BULLETIN

COROFLAKE 34

Product Description: ***COROFLAKE 34*** is a self-priming, two component, C-Glass flake filled, vinyl ester coating system. This coating system consists of two or three coats @ 400 - 600 µm WFT per coat to produce a total DFT of 1,000 µm or 1,500 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: ***COROFLAKE 34*** designed for higher immersion Temperature. It provides the longest lasting, most effective coating system for corrosion prevention of chemical process areas, storage tanks, clarifiers, transportation vessels and oilfield equipment.

Temperature Resistance: + 50 °C wet (2 coats) + 70 °C wet (3 coats) + 120 °C dry

Generic Type: Bisphenol-A 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 2½ 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 34	2 x 400 – 600 µm	1,800 g/m²

Mixing Ratio: 100:2 ***COROFLAKE 34*** resin to HARDENER No. 1 by weight. Mix always hardener into resin-based component, using a low speed mechanical agitator.

Pot Life: 1 ½ hrs. (+ 10 °C) 1 hrs. (+ 20 °C) ½ hrs. (+ 30 °C)

Application Equipment: Conventional Air or Airless Spray.

Application:	Substrate and air temperature shall be @ + 10 °C to + 36 °C (3 K above dew point). ***COROFLAKE 34*** Base coat and Intermediate / Top coats shall be applied after initial set, which will occur normally after 6 to 8 hours. The following topcoats should be applied no longer then seven days later. Refer to the ***COROFLAKE 34*** Installation Procedures for further details. 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 6 months when stored @ + 20 °C. ***COROFLAKE 34*** Resin, Primer and HARDENER No. 1 should be stored at a cool and dry place.
Density:	1.2 kg/l (mixed)
Viscosity:	2,500 mPas ± 300
Flash Point:	***COROFLAKE 34*** + 32 °C and HARDENER No. 1 + 70 °C
Modulus of Elasticity:	2,500 – 3,500 MPa (DIN EN ISO 178) flexural
Thermal Conductivity:	0.30 W/m.K (DIN 52612 T-1)
Electrical resistance:	10^{14} Ohm/cm (ASTM 257)
Dielectric Strength:	16 KV/mm (ASTM D-149)
Coefficient of Expansion:	27 - 30 x 10^{-6} 1/°C (ASTM D 696-90) linear
Abrasion:	90 mg (ASTM – D 4060)
Permeation:	0.0012 perm-inch (ASTM – E 96 - 90 Procedure E)
Adhesion:	7 N/mm² (EN ISO 4624) to grit blasted C-Steel
Hardness:	35 Barcol (DIN EN 59)

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