TECHNICAL BULLETIN

COROFLAKE 10

Product Description:

COROFLAKE 10 is a two component, C-glass flake filled Bisphenol -A- polyester lining system. This lining system consists of one primer @ 50 µm nominal, one body coat and one topcoat @ 800 -1000 µm DFT per coat to produce a total DFT of 1800 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 lining.

Recommended Uses:

COROFLAKE 10 provides protection against a wide range of acids, solvents and mild alkali solutions. It resists most inorganic acids, some strong acids, such as sulphuric acid and phosphoric, up to 70% solutions and most salts. This lining has been widely used within the following industries: Petrochemical, Fertilizer, Marine and heavy Chemical.

Temperature Resistance:

+80 °C wet (not insulated); +120°C dry

Generic Type:

Bisphenol -A- Polyester

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:

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:

	Layer Thickness	Coverage
COROFLAKE® N Primer	1 x 40-60 µm	150 g/m²
COROFLAKE® 10 Resin	2 x 800-1000 µm	3.400 g/m²

Mixing Ratio:

100:2; ***COROFLAKE N*** Primer to Hardener No.1 by weight and 100:1.5 ***COROFLAKE 10*** to Hardener No.2. Stir always hardener into resin based component, using a low speed mechanical agitator.

Pot Life:

1½ hrs. (+10°C) 1 hr. (+20°C) ½ hr. (+30°C)

Application Equipment:

Trowel and Roller

Application:

Note: During application the coated surface must be shaded from direct or indirect sunlight. Intercoat disbondment may otherwise occur.

Pimer is normally applied by brush or roller. Spray application can be used, but requires extra clean surface. Primer may be relined after initial curing, which will occur normally after 4 hours, body coat must be applied within 14 days. ***COROFLAKE 10*** shall be applied in two coats by troweling. Spread body coat 800-1000 µm thick as evenly as possible then smooth by rolling with smoothing liquid F-12. Allow to cure. The following topcoat should be applied no longer then days later. The application step is identical with the body coat. During application observe pot life limitations.

Cleaning: Solvent T-100

Shelf Life: The shelf life is 6 months when stored @ + 20°C.

COROFLAKE 10 Resin, ***COROFLAKE N*** Primer , Hardener No.1 and Hardener No.2 should be stored at a cool and dry place.

	COROFLAKE N Primer	***COROFLAKE 10***
Density:	0.96 kg/l (mixed)	1.2 kg/l (mixed)
Viscosity:	350 mPas	semi thixotropic
Solid Content:	55 ± 2.5 % (mixed)	69 ± 1 % (mixed)

Flash Point: Primer and ***COROFLAKE 10*** +32°C; Hardener Nr.1 +70°C and Hardener No.2 +77°C

Modulus of Elasticity: 5000-8000 MPa (DIN EN ISO 178) flexural

Elongation at Tear: 0.5 % (DIN EN ISO 527)

Coefficient of Expansion: 25-30x10^{-6} 1/°C (ASTM D-696) linear

Abrasion: 72 mg (ASTM – D 4060)

Permeation: 0.00022 perm inch (ASTM-E96-90) Procedure E

Adhesion: 4.0 N/m² (EN ISO 4624) to grit blasted C-Steel

Hardness: 35 Barcol (DIN EN 59)

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