Product Data Sheet

COROFLAKE 620HB EP
High Build Glass Flake Epoxy Coating

PRODUCT DESCRIPTION
COROFLAKE 620HB EP is a two-component, glass flake filled, **high build** coating/lining based on Epoxy Resin.

COATING LAYERS COMPOSITION
This system generally consists of a primer (**COROFLAKE 67PS PRIMER**) and a minimum of one spray coat of the **COROFLAKE 620HB EP** topcoat. Primer may be optional when coating metal surfaces. It can be spray applied up to 40 mils (1000 µm) DFT in a single coat.

COROFLAKE 620HB EP is typically applied in two common thickness ranges to suit specific service conditions. It can be applied in one spray coat a 16-24 mils (400-600 µm) DFT, target 20 mils (500 µm) DFT. Higher build thickness of 30-40 mils (750-1000 µm) DFT, target 36 mils (900 µm) can also be achieved in a single coat.

FIELDS OF APPLICATION
COROFLAKE 620HB EP has excellent resistance to alkalis, dilute acids and many other corrosive chemicals. It is ideal for the protection of steel and concrete structures in chemical process, storage and wastewater treatment areas including tanks, vessels, basins, towers, pits and secondary containment areas.

FEATURES
- Very good broad based chemical resistance
- Easy to apply
- Outstanding adhesion to steel and concrete
- Can be applied direct to metal
- Single coat application for rapid return to service

CHEMICAL RESISTANCE
Information on the chemical resistance properties is available upon request.

SURFACE PRE-TREATMENT
Carbon steel

For immersion or frequent spillage conditions, abrasive blast to “White Metal” in accordance with SSPC SP-5, NACE Specification #1 or SA 3. For fumes or occasional spill exposure and dry environments, abrasive blast to “Near White” in accordance with SP-10, NACE #2 or SA 2 1/2. A minimum surface profile of 3 mils (75 microns) is required. Refer to specification, RCC TT-14. After blast cleaning the steel surface shall be primed or coated before the formation of any rust bloom. For direct to metal coating options consult RCC Corrosion Control.

Concrete

The concrete shall have a minimum compressive strength of 3500 psi (25 N/mm²) and a minimum surface strength of 200 psi (1.4 N/mm²) for coatings and 300 psi (2.1 N/mm²) for linings. The concrete must be thoroughly cured and dry at the time of application.

The residual moisture content should not exceed 4%. ASTM D 4263 plastic sheet test method is recommended to ensure concrete is moisture free. If moisture is detected, repeat test until dry. Abrasive blast or mechanically abrade surface to remove the weak laitance and surface contaminants. Refer to specification, RCC TT-3 for details.

APPLICATION
- The Primer is applied by airless or conventional air spray, roller or brush. In order to achieve the high build characteristics of **COROFLAKE 620HB EP**, it must be spray applied using airless or conventional spray equipment. The typical dry film thickness ranges per coat are 16-24 mils (400-600 µm), target 20 mils (500 µm) or 30-40 mils (750-1000 µm), target 36 mils (900 µm).
- Application of **COROFLAKE 620HB EP** by brush or roller should be limited to touch up and small areas only. Additional coats may be required to achieve the total recommended thickness.

Note: During application the lined surface should be shaded from direct or indirect sunlight when possible.

MIX RATIO
The mix ratio of **COROFLAKE 67PS PRIMER Resin** to **Hardener No. 7** is 2:1 by volume. The mix ratio of **COROFLAKE 620HB EP Resin** to **Hardener No. 7** is 3:1 by volume.

CONSUMPTION

Layer	Thickness mils (µm)	Coverage (Mix Ratio)
PRIMER on steel	2-5 (50-125)	250-300 ft²/gal
PRIMER on concrete	2-5 (50-125)	160-200 ft²/gal
COATING	20 (500)	60 ft²/gal
	36 (900)	33 ft²/gal

WORKING TIME & RECOAT TIME

Temperature	Working Time	Min Recoat	Max Recoat
50°F (10°C)	approx. 120 min	16 hrs	2 weeks
70°F (21°C)	approx. 60 min	8 hrs	2 weeks
90°F (32°C)	approx. 30 min	4 hrs	1 week

CURE TIME (to place in service)

Temperature	Minimum Cure time
50°F (10°C)	5 days
70°F (21°C)	3 days
90°F (32°C)	2 days

Generally **COROFLAKE 620HB EP** can be placed in service after the final cure time intervals have been achieved. Shorter or longer intervals may apply depending on service conditions. Consult RCC Corrosion Control for specific recommendations.

CLEANING: Cleaning Agent T-100

SAFETY MEASURES

The material safety data sheets of the individual components as well as the legal requirements for handling hazardous materials must be observed.

PACKING UNITS

The products are supplied in the following standard package sizes:

Description	Package Size
COROFLAKE 67PS PRIMER	.75, 3, 15, 45 gal kits
COROFLAKE 620HB EP	1, 4 gal kits

STORAGE

The materials must be stored in a cool and dry place. At storage temperature of 70°F (21°C) the shelf life is as follows:

COROFLAKE 67PS PRIMER Resin 24 months
COROFLAKE 620HB EP Resin 24 months
Hardener No. 7 24 months

If the storage time is exceeded, the materials must be tested before use. Higher storage and transport temperatures will reduce the shelf life. The containers must be kept tightly closed. Liquid products must be stored frost-proof.

Technical Data	Testing Standard	Unit	Value
Density	ASTM D1475	lbs/gal kg/l	9.55±0.25 1.14
Viscosity Mixed (Brookfield)	ASTM D2196	Cps (mPa·s)	3600 ± 500
Modulus of Elasticity (Bend Test)	ASTM D790	psi MPa	435K – 500K 3,000 – 3,500
Tensile Strength	ASTM D638	psi MPa	2,300 16
Adhesion Strength - Concrete	ASTM D7234	psi N/mm²	Exceeds concrete strength
Minimum Adhesion Strength - Steel	ASTM D4541	psi N/mm²	1000 7
Linear Coefficient of Thermal Expansion	ASTM C531	in/in°F cm/cm°C	17 x 10^{-6} 30 x 10^{-6}
Solids Content		% vol	85
Volatile Organic Compounds	EPA Method 24	g/L (lbs/gal)	58 (0.48)
Maximum Operating Temperature* Immersion [at 16-24 mils (400-600µm)] Immersion [at 30-40 mils (750-1000µm)] Splash/Spill Concrete Continuous Dry		°F °C °F °C °F °C °F °C	120 49 130 54 160 71 200 93

***Maximum operating temperature limits may vary depending on actual service conditions**

We warrant that our goods will conform to the description contained in the order and that we have good title to all goods sold. This Product Data Sheet is considered accurate and reliable to the best of our knowledge at the date of its publication, but are used as guides only. The user assumes all risks and liabilities in connection therewith regardless of any suggestion, we may give. We assume no liability for performance of the product or for any loss or damage resulting from its use. Our liability, in law and equity, shall be expressly limited to the replacement of non-conforming goods at our factory, or at our sole discretion, to repayment of the purchase price of the non-conforming goods.