Product Data Sheet

RCC CORROSION CONTROL

COROFLAKE 200 EN
High Performance Epoxy Novolac Glass Flake Coating

PRODUCT DESCRIPTION
COROFLAKE 200 EN is a two-component, 100% solids, glass flake filled coating/lining system based on Epoxy Novolac resin.

COATING LAYERS COMPOSITION
The coating system consists of a primer (**COROFLAKE 67PS PRIMER**) and two coats of **COROFLAKE 200 EN** applied at 15-20 mils (375-500 µm) DFT, target 18 mils (450 µm) DFT per coat. Total applied thickness is 30-40 mils (750-1000 µm) DFT with a target of 36 mils (900 µm) DFT. **COROFLAKE 200 EN** is available in standard grey and tile red colors.

FIELDS OF APPLICATION
COROFLAKE 200 EN has excellent resistance to alkalis, salts and many types of acids. It exhibits particularly good resistance to 98% sulfuric acid and all concentrations of sodium hydroxide. **COROFLAKE 200 EN** is an ideal corrosion protection material for concrete and steel structures in process and storage areas. Applications include protection of tanks, vessels, trenches, pits, vaults, dikes and secondary containment at chemical plants, power plants and other industries where chemical processes are present.

FEATURES
- Excellent chemical resistance including exposure to 98% sulfuric acid and 50% sodium hydroxide
- Easy to apply
- Solvent free

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 µm) 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
- Prime the substrate with **COROFLAKE 67PS PRIMER** and allow the primer to cure.
- **COROFLAKE 200 EN** is applied by roller, brush or plural component spray equipment designed to accommodate 4:1 volume mix ratio.
- **COROFLAKE 200 EN** is applied in two coats at 15-20 mils (375-500 µm) DFT per coat for a total of 30-40 mils (750-1000 µm) DFT. Application by roller or brush may require additional coats to achieve the total recommended thickness.
- Allow 7 days cure at 70°F (21°C) before placing the lining into concentrated sulfuric acid service.

Review installation procedures for further instructions.

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. Mix ratio of **COROFLAKE 200 EN Resin** to **COROFLAKE 200 EN Hardener** is 4:1 by volume.

CONSUMPTION

Layer	Thickness mils (µm)	Coverage
PRIMER on steel	2-5 (50-125)	250-300 ft²/gal
PRIMER on concrete	2-5 (50-125)	160-200 ft²/gal
BASECOAT COROFLAKE 200 EN Resin & Hardener	15-20 (375-500)	65-75 ft²/gal
TOPCOAT COROFLAKE 200 EN Resin & Hardener	15-20 (375-500)	65-75 ft²/gal

WORKING TIME & RECOAT TIME

Temperature	Working Time	Min Recoat	Max Recoat
50°F (10°C)	60 min	12 hrs	7 days
70°F (21°C)	30 min	6 hrs	2 days
90°F (32°C)	15 min	3 hrs	1 day

CURE TIME (to place in service)

Temperature	Minimum Cure time	Minimum Cure time for concentrated Sulfuric Acid
70°F (21°C)	3 days	7 days
90°F (32°C)	2 days	3 days

Generally **COROFLAKE 200 EN** 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 200 EN	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
Hardener No. 7 24 months
COROFLAKE 200 EN Resin 24 months
COROFLAKE 200 EN Hardener 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	9.89±0.25 1.19
Flexural Strength	ASTM D 790	Psi MPa	5500 38
Tensile Strength	ASTM D638	Psi MPa	3400 23
Linear Coefficient of Thermal Expansion	ASTM C 531	in/in°F cm/cm/°C	15-17 x 10^{-6} (27-30 x 10^{-6})
Adhesion Strength - Concrete	ASTM D7234	Psi N/mm²	Exceeds concrete strength
Minimum Adhesion Strength - Steel	ASTM D4541	Psi N/mm²	1000 7
Volatile Organic Compounds	EPA Method 24	g/L lbs/gal	27 0.23
Maximum Operating Temperature* Immersion Steel Immersion Concrete Splash/Spill Concrete Continuous Dry		 °F °C °F °C °F °C °F °C	 120 49 130 54 200 93 300 149

***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.