

COROFLAKE 67 MR Mat Reinforced Crack-Bridging Epoxy Lining

PRODUCT DESCRIPTION

COROFLAKE 67 MR is a fiberglass mat reinforced, chemical resistant, crack-bridging lining based on Epoxy resin.

LINING LAYERS COMPOSITION

The lining system consists of a primer, a trowel applied basecoat, fiberglass mat as reinforcement and a spray or roller applied topcoat. The standard lining thickness design is 80-120 mils (2.0-3.0 mm) DFT. Actual thickness is dependent on the topcoat selection and number of coats required. Various chemical resistant epoxy and epoxy novolac topcoat options are available depending on specific service conditions.

FIELDS OF APPLICATION

COROFLAKE 67 MR is used to protect steel and concrete structures that are exposed to alkalis, acids and many other corrosive chemicals. It is used in process and storage areas as a lining for tanks, trenches, pits, process floors and secondary containment. It is particularly suitable for applications on concrete where chemical resistance and a degree crack-bridging is required.

FEATURES

- Versatile lining system - various topcoat options
- Very Good broad based chemical resistance
- Can bridge cracks in concrete
- User friendly, low odor

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 before the formation of any rust bloom.

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 prepared substrate with **COROFLAKE 67PS PRIMER** and allow the primer to cure.
- Trowel apply the Basecoat mixture of **COROFLAKE 67PS Resin, Hardener No. 7** and **F-1 Filler** in one uniform layer at approximately 60 mils (1500 µm) WFT.
- Immediately upon placement of the Basecoat (while it is still wet), the 1.5 oz. fiberglass mat (1 oz. optional) is pressed onto the surface, then saturated and rolled with the mixed **COROFLAKE 67PS Resin and Hardener No. 7**. A ribbed roller is used to remove entrapped air. Allow the mat/cloth layer to cure.
- Spray or roller apply the designated topcoat in accordance with the individual product data sheets and coating component mixing instructions. One or two topcoats may be specified.

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

MIX RATIO

COROFLAKE 67PS Resin is the resin component of the primer, basecoat and fiberglass mat saturant. It is mixed with **Hardener No. 7** at a ratio of 2:1 by volume, resin to hardener.

CONSUMPTION

Layer	Thickness mils (µm)	Coverage (Mix Ratio)
PRIMER on steel	2-5 (50-125)	250-300 ft ² /gal
PRIMER on concrete	2-5 (50-125)	160-200 ft ² /gal
BASECOAT COROFLAKE 67PS Resin & Hardener #7 F-1 Filler	60 (1500)	47-52 ft ² /gal (2:1 vol, resin:hardener) 100ft ² /50 lb bag (20-25 lb/gal mixed resin)
REINFORCEMENT COROFLAKE 67PS Resin & Hardener No.7 1 oz. or 1.5 oz. Mat	35 (875)	38-42 ft ² /gal (2:1 vol, resin: hardener) 1.1 x surface area

TOPCOAT OPTIONS

Topcoat Options*	Thickness Per Coat		Coverage Per Coat (typical)
	mils	µm	
COROGARD 66 EP	6-8	150-200	160-220 ft ² /gal
COROFLAKE 611 EP	6-8	150-200	140-180 ft ² /gal
COROFLAKE 200 EN	15-20	375-500	65-75 ft ² /gal
COROFLAKE 266 EN	15-20	375-500	65-75 ft ² /gal

*Refer to individual Product Data Sheet

WORKING TIME & RECOAT TIME

Temperature	Working Time (COROFLAKE 67PS)	Min Recoat	Max Recoat
50°F (10°C)	approx. 70-90 min	16 hrs	2 weeks
70°F (21°C)	approx. 45-60 min	8 hrs	2 weeks
90°F (32°C)	approx. 25-30 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 67 MR** 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

Technical Data	Testing Standard	Unit	Value
Density - Basecoat	ASTM D1475	lbs/gal kg/l	9.29±0.25 1.11
Density - Topcoat	ASTM D1475	lbs/gal (kg/l)	Varies depending on topcoat
Modulus of Elasticity (Bend Test)	ASTM D790	Psi MPa	580,000 - 870,000 4,000 – 6,000
Tensile Strength – Reinforcement Layer	ASTM D638	Psi MPa	10,000 69
Compressive Strength	ASTM C579	Psi MPa	9,000-10,000 62-69
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/mm ²	Exceeds concrete strength
Minimum Adhesion Strength - Steel	ASTM D4541	Psi (N/mm ²)	1000 (7)
Crack Movement Tolerance (Concrete)		Mils (microns)	20 (500)
Volatile Organic Compounds (COROFLAKE 67PS PRIMER)	EPA Method 24	g/L (lbs/gal)	45 (0.38)
Maximum Operating Temperature*	Immersion Steel Immersion Concrete Splash/Spill Concrete	°F °C °F °C °F °C	140 60 160 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.

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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/SATURANT	.75, 3, 15, 45 gal kits
1 oz., 1.5 oz. Fiberglass Mat	Sq. ft.
F-1 Filler	50 # bag

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

F-1 Filler, 1 oz., 1.5 oz. Mat Indefinite, if kept dry

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.