

COROFLAKE 266 MR Mat Reinforced Glass Flake Epoxy Novolac Lining

PRODUCT DESCRIPTION

COROFLAKE 266 MR is a fiberglass mat reinforced chemical resistant lining based on Epoxy Novolac resin.

LINING LAYERS COMPOSITION

The lining system consists of primer, trowel applied basecoat, one layer of 1.5 oz. fiberglass mat as reinforcement and a glass flake filled topcoat. The applied thickness range of the lining system is 80-120 mils (2.0-3.0 mm) DFT.

FIELDS OF APPLICATION

COROFLAKE 266 MR is used to protect concrete structures that are exposed to alkalis, salts, and many acids. It has excellent resistance to sulfuric acid and sodium hydroxide solutions as well as many other chemicals. It is ideal for use in process and storage areas as a protective lining for concrete tanks, trenches, pits, process floors and secondary containment areas.

FEATURES

- Excellent chemical resistance including exposure to concentrated sulfuric acid
- Mat reinforcement provides structural support and assists in bridging small concrete surface cracks
- Outstanding adhesion to concrete
- Long term service

CHEMICAL RESISTANCE

Information on the chemical resistance properties is available upon request.

SURFACE PRE-TREATMENT

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. For best results the prepared concrete surface should have a minimum surface texture equivalent to ICRI CSP 5 profile standard. Refer to specification, RCC TT-3 Concrete Surface Preparation for additional details.

APPLICATION

- Prime the prepared concrete substrate with **COROFLAKE 67PS PRIMER** and allow the primer to cure. Observe recoat times.
- Mix the Basecoat components (**COROFLAKE 266 BC Resin, Hardener No. 10, F-1 Filler**) and trowel apply a uniform layer at approximately 60 mils (1.5 mm) wet film thickness (WFT) over the cured primer.
- Immediately upon placement of the Basecoat (while it is still wet), the 1.5 oz. fiberglass mat is pressed onto the surface, then saturated and rolled with the mixed **COROFLAKE 266 BC Resin and Hardener No. 10**. A ribbed roller is used to remove any entrapped air. Allow the mat layer to cure.
- Check the cured mat reinforcement layer for amine blush. If present, wash with water to remove the film and let dry before application of the Topcoat.
- Apply the Topcoat mixture of **COROFLAKE 266 EN Resin and 266 Hardener** at 15-20 mils (375-500 µm) WFT by spray, roller or squeegee and back roll. 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

Mix ratio of **COROFLAKE 67PS PRIMER Resin to Hardener No. 7**, **COROFLAKE 266 BC Resin to Hardener No.10** and **COROFLAKE 266 EN Resin to 266 Hardener** is 2:1 by volume.

CONSUMPTION

Layer	Thickness mils (µm)	Coverage (Mix Ratio)
PRIMER on concrete	2-5 (50-125)	160-200 ft ² /gal
BASECOAT		
COROFLAKE 266 BC Resin & Hardener No. 10 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 266 BC Resin & Hardener No. 10 1.5 oz. Fiberglass Mat	35 (875)	38-42 ft ² /gal (2:1 vol, resin: hardener) 1.1 x surface area
TOPCOAT		
COROFLAKE 266 EN Resin & 266 Hardener	15-20 (375-500)	65-75 ft ² /gal (2:1 vol, resin: hardener)

WORKING TIME & RECOAT TIME

Temperature	Working Time BC/Sat/TC	Min Recoat	Max Recoat
50°F (10°C)	60 min	12 hrs	7 days
70°F (21°C)	40 min	6 hrs	3 days
90°F (32°C)	20 min	3 hrs	2 days

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 266 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

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 266 BC	.75, 3, 15 gal kits
1.5 oz. Fiberglass Mat	Sq ft
COROFLAKE 266 EN	1, 5 gal kits
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
COROFLAKE 266 EN Resin & Hardener	24 months
COROFLAKE 266 BC Resin	24 months
Hardener No. 10	24 months
F-1 Filler, 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.

Technical Data	Testing Standard	Unit	Value
Generic Resin Type			Epoxy Novolac
Modulus of Elasticity (Bend Test)	ASTM D 790	Psi (MPa)	435,000 (3,000)
Tensile Strength	ASTM C307	Psi (MPa)	4,500 (31)
Hardness	ASTM D2240	Shore D	≥ 70
Compressive Strength	ASTM C579	Psi (MPa)	9,500 (61)
Adhesion Strength – Concrete	ASTM D4541	psi	Exceeds concrete strength
Linear Coefficient of Thermal Expansion	ASTM C531	in/in°F cm/cm/°C	18.7 x 10 ⁻⁶ 33.7 x 10 ⁻⁶
Maximum Operating Temperature*			
Immersion Concrete		°F °C	160 71
Splash/Spill Concrete		°F °C	200 93

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

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