Product Data Sheet

RCC CORROSION CONTROL

COROFLEX BC
Crack-Bridging Elastomeric Epoxy Membrane

PRODUCT DESCRIPTION
COROFLEX BC is a high performance, flexible, crack-bridging membrane based on modified Epoxy elastomer technology. It is designed to tolerate crack movement in concrete.

LINING LAYERS COMPOSITION
COROFLEX BC is the flexible basecoat membrane used in **COROFLEX LINING** systems and specific **Crack-bridging Joint Detail** designs. It helps to reduce stress on a lining caused by moving cracks. A fiberglass reinforcement layer applied over the membrane works to dissipate localized stresses and provide the tensile strength required to enable lining systems to function as designed. The reinforcement layer consists of fiberglass mat and either an epoxy or vinyl ester resin saturant depending on the specific chemical requirements. Topcoat selection is dependent on chemical resistance and operating service conditions. These include epoxy, epoxy novolac, polyester, vinyl ester and novolac vinyl ester topcoats.

FIELDS OF APPLICATION
COROFLEX BC can be used as the flexible basecoat membrane for crack-bridging strap and hinge joints and as the basecoat for flexible lining systems. It can also be used as a sealant for joints and cracks in concrete.

FEATURES
- Very good crack-bridging capability
- Good chemical resistance
- Can be applied on horizontal and vertical surfaces

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. Refer to installation procedure Tip Topics #3 for details.

APPLICATION
- Prime the substrate with **COROFLAKE 67PS PRIMER** and allow the primer to cure.
- **COROFLEX BC** is available in two versions. **COROFLEX BC HORIZ** is designed for application on horizontal surfaces and **COROFLEX BC VERT** is designed for application on vertical surfaces
- When used as a joint or crack sealant **COROFLEX BC** can be poured or troweled depending on the orientation of the joint or crack.
- When used as a basecoat membrane apply **COROFLEX BC** by trowel or squeegee in one uniform layer at approximately 40 mils (1000 µm) WFT. Allow the basecoat to cure.
- Subsequently applied fiberglass reinforcement layers require either **COROFLAKE 67PS PRIMER** (epoxy) or **COROFLAKE N PRIMER U** (vinyl ester) resin saturant. Other saturant resin types may be required based on chemical exposure conditions. Consult RCC Corrosion Control for specific resin saturant selection.
- Refer to specific RCC Corrosion Control product and technical documents describing **COROFLEX LININGS** and **Crack-bridging & Hinge Joint Details** for further design and application information.

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

MIX RATIO
The mix ratio of **COROFLAKE 67PS PRIMER Resin** to **Hardener No. 7** is 2:1 by volume. The mix ratio of **COROFLEX BC Resin (HORIZ & VERT)** to **COROFLEX BC Hardener** is 1:1.4 by volume.

CONSUMPTION

Layer	Thickness mils (µm)	Coverage
PRIMER COROFLAKE 67PS PRIMER	2-5 (50-125)	160-200 ft²/gal
BASECOAT / MEMBRANE COROFLEX BC (HORIZ or VERT)	30-50 (750-1250)	24-40 ft²/gal

WORKING TIME & RECOAT TIME

Temperature	Working Time	Min Recoat	Max Recoat
50°F (10°C)	approx. 90 min	16 hrs	14 days
70°F (21°C)	approx. 60 min	8 hrs	14 days
90°F (32°C)	approx. 30 min	4 hrs	7 days

CURE TIME (to place in service)

Temperature	Minimum Cure time
50°F (10°C)	5-7 days
70°F (21°C)	2-3 days
90°F (32°C)	1-2 days

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
COROFLEX BC (HORIZONTAL & VERTICAL)	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
COROFLEX BC Resin (HORIZ & VERT) 12 months
COROFLEX BC Hardener 12 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
Generic Type			modified epoxy
Density	ASTM D1475	lbs/gal kg/l	8.45 ±0.25 1.01
Solids Content		%	95
Tensile Strength – Reinforcement Layer	ASTM D638	psi MPa	10,800 75
Adhesion Strength - Concrete	ASTM D7234	psi N/mm²	Exceeds concrete strength
Elongation (Basecoat / Membrane)	ASTM D412	%	80%
Crack Movement Tolerance (Reinforced) (Dependent on Resin Saturant & Topcoat Design)		mils microns	30-60 750-1500
Volatile Organic Compounds (COROFLEX BC)	EPA Method 24	g/L (lbs/gal)	43 (1.19)
Maximum Operating Temperature* (Reinforced Lining) Immersion Concrete Splash/Spill Concrete		 °F °C °F °C	 130 54 160 71

***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.