Product Data Sheet

RCC CORROSION CONTROL

COROWEAR EN CERAMIC COMPOUND
Epoxy Novolac Polymer Wear Resistant Compound

PRODUCT DESCRIPTION

COROWEAR EN is a two component, 100% solids, polymer wear resistant compound based on Epoxy Novolac resin technology. Its design incorporates a proprietary blend of densely packed ceramic beads to optimize the protection of surfaces exposed to wear and abrasive conditions.

V-1 Filler is an optional thixotropic fiber component that is also included in the standard **COROWEAR EN** kit packaging. It is added to the resin and hardener mixture when increased sag/slump resistance at higher build thicknesses is desired.

LAYERS COMPOSITION

COROWEAR EN is generally applied at thicknesses ranging from 1/4" to 2" (6 to 50 mm) in a single layer application. It can be applied in multiple layers. Some applications may require a surface Primer. Consult RCC Corrosion Control for specific recommendations.

FIELDS OF APPLICATION

COROWEAR EN is resistant to most alkalis, salts, dilute acids, solvents, and petroleum products. It is specifically formulated to effectively repair and rebuild steel or concrete structures subject to severe abrasion including chutes, hoppers, elbows, deflector plates, cyclones, separators, vibratory feeders, transfer augers, etc.

FEATURES

- 100% Solids, Solvent and VOC Free
- Easy to apply by trowel, putty knife, hand moulding
- Excellent wear resistance to fine and coarse slurries
- Excellent sag retention at high build thickness
- Very good mechanical properties
- Very good broad based chemical resistance
- Can be returned to service as quickly as 24 hours

CHEMICAL RESISTANCE

Information on the chemical resistance properties is available upon request.

SURFACE PRE-TREATMENT

Carbon steel

For best results steel surfaces should be abrasive blasted. For immersion service abrasive blast to "White Metal" in accordance with SSPC SP-5, NACE Specification #1 or SA 3. For non-immersion service abrasive blast to "Near White" in accordance with SP-10, NACE #2 or SA 2.5. A minimum surface profile of 3 mils (75 µm) is recommended.

Concrete

For best results concrete compressive strength should be minimum 3500 psi (25 N/mm²). Minimum surface strength should be 300 psi (1.4 N/mm²).

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 the concrete to achieve a minimum surface texture of CSP 6 in accordance with ICRI surface profile standards.

APPLICATION

- For applications on concrete a substrate Primer may be recommended. Consult RCC for specific details.
- Mix the **COROWEAR EN RESIN & HARDENER** thoroughly in a clean container using a 1/2" drill motor and a mixer with cross type blade or paddle whip at a low speed, or similar mixing equipment. Once mixed, add in the optional **V-1 Filler** component and continue mixing until fully blended, Be sure to scrape the sides and bottom of container to ensure all components are uniformly mixed.
- **COROWEAR EN** is applied with a trowel, putty knife or similar tool depending on the size of the repair. Apply the material in several different directions to fill the void and help eliminate any entrapped air. A minimal amount of fill should remain on the sound substrate surface. Allow **COROWEAR EN** to cure before applying subsequent layers.

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

MIX RATIO

The mixing ratio of **COROWEAR EN RESIN** to **HARDENER** is **2:1** by volume.

CONSUMPTION

Layer Description	Typical Thickness	Theoretical Coverage	
		ft²/gal	in²/lb
COROWEAR EN (Including V-1 Filler)	1/4"	6	56
	1/2"	3	28
	1"	1.5	14
	1-1/2"	1	9
	2"	0.75	7

WORKING TIMES & CURE TIMES

Property	Temperature	Time
Working Time	75°F (24°C)	25 min
Minimum Recoat	75°F (24°C)	4-6 hrs
Maximum Recoat	75°F (24°C)	72 hrs
Functional Cure	75°F (24°C)	4 hrs
Operational Cure*	75°F (24°C)	24 hrs
Full Cure*	75°F (24°C)	72 hrs

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

CLEANING: Cleaning Agent T-100, MEK, Xylene

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
COROWEAR EN	0.25 gal (3.9 lb) kit, 1 gal (15.5 lb) kit

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:

COROWEAR EN RESIN 24 months
COROWEAR 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
Generic Resin Type			Epoxy novolac
Color			Grey
Solids Content		%	100
Density	ASTM D1475	lbs/gal kg/l	15.5 1.9
Viscosity	ASTM D2393	cps mPa·s	350,000
Compressive Strength	ASTM C579	psi Mpa	10,000 69
Adhesion Strength - Concrete	ASTM D7234	psi N/mm²	Exceeds concrete strength
Minimum Adhesion Strength – Steel	ASTM D4541	psi N/mm²	600 4
Cured Hardness	ASTM D2240	Shore D	70
Maximum Operating Temperature* Wet Dry		°F °C °F °C	140 60 220 104

*** 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.