Product Data Sheet

RCC CORROSION CONTROL

COROPATCH 21 VE
Vinyl Ester Patch/Fill Compound

PRODUCT DESCRIPTION
COROPATCH 21 VE is a two-component, chemical resistant Vinyl Ester patch/fill compound. It is designed to fill irregularities and defects in concrete and steel substrate surfaces prior to application of RCC Corrosion Control vinyl ester and polyester coating, lining and flooring systems.

PATCHING LAYERS COMPOSITION
The system generally consists of a primer (**COROFLAKE N PRIMER U)** and the **COROPATCH 21 VE** applied up to 1/4" (6 mm) thickness in a single layer application.

FIELDS OF APPLICATION
COROPATCH 21 VE is used on concrete substrates to repair cracks and patch/fill voids, air pockets, pits, pinholes, honeycombs or other defects. It is used on steel substrates to smooth welds, fill pits and contour corners and edges.

FEATURES
- Very high solids content – minimal shrinkage
- Ease of application
- Two Component - no additional filler needed
- Uniform consistency
- Incorporates FDA compliant resin
- Excellent adhesion to concrete and steel
- Excellent chemical resistance
- Provides smooth surface for coating/lining

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 RTT #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 further detail.

APPLICATION
COROFLAKE N PRIMER U is normally applied by roller or brush. Apply one coat of primer and allow it to cure. When applying primer to irregular surfaces work the primer into crevices and voids with a brush to ensure all of the concrete is coated.

Hardener No. 1 Clear is added to **COROPATCH 21 VE Resin** in a clean container and mixed well for at least 2 minutes using a 1/2" drill motor and a mixer with cross type blade or paddle whip at a low speed, or similar mixing equipment. Be sure to scrape the sides and bottom of container to ensure hardener is uniformly mixed with the resin.

COROPATCH 21 VE is applied with a trowel, spatula or putty knife 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. Allow **COROPATCH 21 VE** to cure before applying subsequent coating, lining or flooring layers.

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

MIX RATIO
Hardener No. 1 Clear is used with **COROFLAKE N PRIMER U** and **COROPATCH 21 VE**. The mixing ratio of hardener to resin is 1.5-2.5 oz. per gallon by volume.

CONSUMPTION

Layer	Thickness mils (µm)	Coverage
PRIMER	2-5 (50-125)	
On Steel		250-300 ft²/gal
On Concrete		160-200 ft²/gal
COROPATCH 21 VE	1/16" (1500)	20-24 ft²/gal
	1/8" (3125)	10-12 ft²/gal
	1/4" (6250)	5-6 ft²/gal

WORKING TIME & RECOAT TIME

Temperature	Working Time	Min Recoat	Max Recoat
50°F (10°C)	approx. 60 min	12 hrs	14 days*
70°F (21°C)	approx. 40 min	6 hrs	14 days*
90°F (32°C)	approx. 20 min	3 hrs	7 days*

* Maximum when area is shaded. If exposed to direct or indirect sunlight, maximum recoat time is 7 days @ 70°F (21°C).

CURE TIME (to place in service)

Temperature	Minimum Cure time
50°F (10°C)	72 hrs
70°F (21°C)	48 hrs
90°F (32°C)	24 hrs

Generally **COROPATCH 21 VE** 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 N PRIMER U	1, 4, 50 gal kits
COROPATCH 21 VE	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 N PRIMER U Resin 6 months
COROPATCH 21 VE Resin 6 months
Hardener No. 1 Clear 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			Vinyl Ester
Color			Grey
Solids Content		%	90
Viscosity	ASTM D2393	cps mPa·s	200,000-225,000
Compressive Strength	ASTM C579	psi MPa	10,000 69
Tensile Strength	ASTM D638	psi MPa	2900 20
Adhesion Strength - Concrete	ASTM D7234	psi N/mm²	Exceeds concrete strength
Volatile Organic Compounds	EPA Method 24	g/L (lbs/gal)	120 (1.0)

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.