

EMACO® P22

Flexible cementitious rebar coating

DESCRIPTION:

EMACO® P22 is a polymer-modified cement-based coating with RHEOCRETE® 222+ corrosion inhibiting admixture. This two component product provides protection for steel reinforcement in concrete against corrosion.

RECOMMENDED FOR:

Protection of structural reinforcing steel that has been, or may be, subject to corrosion and where a cementitious repair material will be applied. Applications include:

- Horizontal, vertical or overhead repairs where steel reinforcement is present
- Bridges
- Water treatment facilities
- Parking garages
- Tunnels
- Marine projects

FEATURES/BENEFITS:

- Protects reinforcing steel against corrosion
- Dual protection of polymeric barrier and RHEOCRETE® 222+ corrosion inhibitor
- Excellent adhesion to steel, concrete and mortar
- Not a vapor barrier
- Will not act as a bond breaker when applied on reinforcing steel or surrounding concrete
- High alkalinity level similar to concrete
- Resistant to chloride and acidic gases such as CO₂/SO₂
- Non toxic
- High visibility color
- Low electrical resistivity, unlike epoxy
- Easy to apply to reinforcing steel with a medium hard brush
- Excellent adhesion to cementitious repair mortars such as EMACO

PACKAGING/ESTIMATING:

EMACO P22 is available in a 3.96 lb (1.8 kg) unit consisting of a 1.1 lb (0.5 kg) Part A and a 2.86 lb (1.3 kg) Part B.

One unit of EMACO P22 will cover approximately 80 ft (24 m) of 1/2 in. (1.25 cm) diameter number 4 rebar, when applied in two coats, to an overall thickness of] approximately 80 mils.

PERFORMANCE DATA¹:

Concrete-Steel Bond Strength (Master Builders pull-out method)

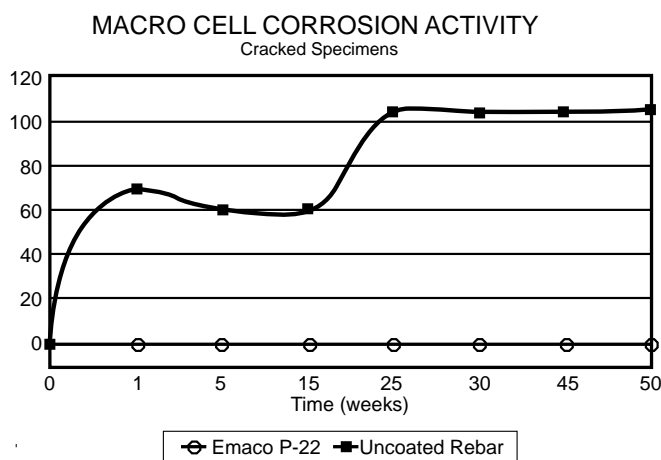
Cure Time	Smooth Rebar	Deformed Rebar
Tack Free	280 psi	380 psi
7 Day	280 psi	300 psi

*Cure time prior to embedding in concrete. Pull out tests taken after 28 days curing of concrete.

¹Properties listed are typical and based on laboratory tested samples.

Cracked Beam Test

EMACO P22 coating will provide exceptional corrosion protection for reinforcing steel in cracked concrete, as can be seen from Macro Cell Corrosion testing, as shown in the chart below.



Pot Life (approximate)

50 °F (10 °C)	2 hours
70 °F (21 °C)	1 hour
85 °F (29 °C)	30 minutes

Supply Form
Color
Mixed color

Component A
liquid
white

Component B
powder
orange-red

orange-red

The following information regarding surface preparation, mixing and application is provided as a brief overview. For detailed instructions before use of this product, reference the EMACO P22 product packaging.

SURFACE PREPARATION:

Deteriorated parts of concrete around rusting reinforcement must be removed to expose sound concrete. The clean substrate must be alkaline (pH above 9.5), free of harmful salts and free of oil, rust, dust or other contaminants.

Remove all rust stains thoroughly from the steel reinforcing bars after they have been laid bare. Sand-blasting or high-pressure water jetting are strongly recommended to achieve proper adhesion. Apply the first coat of EMACO P22 immediately after rust removal. For additional information refer to International Concrete Repair Institute (ICRI) Surface Preparation Guidelines for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Oxidation.

MIXING:

Pour Component A (white liquid) into a pail. Slowly add Component B (orange red powder), stirring constantly with a low speed drill until a homogenous, lump-free compound is obtained.

APPLICATION:

Immediately after removal of the rust, coat the reinforcement completely with EMACO P22 using a medium-hard brush. Apply two layers to achieve a total thickness of approximately 80 mils. The second layer can be applied as soon as the first is dry to the touch (about 30 minutes).

Patching mortar can be applied to restore the section, as soon as the EMACO P22 is no longer tacky (approximately 30 minutes), but do not wait longer than 7 days.

LIMITATIONS:

- Minimum ambient temperature for application is 40 °F (5 °C) and rising.
- Part A must not be allowed to freeze. Once frozen, Part A becomes unusable.
- At temperatures above 90 °F (32 °C) pot life is severely limited.
- Do not wait longer than 7 days before cementitious product is applied.
- EMACO P22 can be stored in a dry, above freezing environment for 6 months when stored in tightly sealed original containers.
- This product is not intended as a bonding agent between old concrete and new repair materials. Consult Master Builders for information on adhesive products.
- EMACO P22 is a two component, polymer-modified cementitious coating which is formulated for industrial and professional use only; keep product out of the reach of children. The product's components contain chemicals which may be HARMFUL to your health if not stored and used properly. Hazards can be significantly reduced by observing all precautions found in the Material Safety Data Sheets (MSDS), product labels and technical literature. Please read this literature carefully before using this product.

RELATED BULLETINS:

Material Safety Data Sheet — EMACO P22
Specification Bulletin 7S58 — EMACO P22

Master Builders, Inc. United States

23700 Chagrin Boulevard
Cleveland, Ohio 44122-5554
(800) MBT-9990
Fax (216) 831-6910

Canada

3637 Weston Road
Toronto, Ontario M9L 1W1
(800) 387-5862
Fax (416) 741-7925

Mexico

Blvd. M. Avila Camacho 80, 3er Piso
53390 Naucalpan, México
011-525-557-5544
Fax 011-525-395-7903