

“40 years of successful use on North Sea off-shore platforms...strong evidence of Corroless EP’s long-term performance!”

Corroless EP is a high-performance, two-part, glass reinforced coal tar epoxy. In use for four decades on off-shore platforms in the North Sea, this combination primer and top coat has proven its effectiveness in the most severe environment. No wonder Corroless EP is ideal for general below-ground pipeline protection. **Here are six important facts you need to know:**

Coats rust and wet substrates with minimal surface preparation

Corroless EP is often used where normal standards of surface preparation cannot be achieved or maintained. It can be applied over firmly-adherent rust, wet or damp substrates, yet requires minimal surface preparation. A surface cleaned to SSPC-SP2 or SSPC-SP3 provides all the preparation this coating needs for excellent adhesion.

Because it displaces moisture so effectively, it is an excellent coating for compressor station piping subjected to severe con-

densation. In fact, it is especially beneficial coating pipe in any area with extreme humidity.

Patented pigment turns rust into magnetite

Considered a “rust stabilizer,” a unique pigment in Corroless EP enables it to stabilize rust and, via an electro-chemical reaction, transforms rust into magnetite, an inert iron oxide (Fe_3O_4).

Glass flake technology improves abrasion resistance up to 100%, water vapor transmission rate up to a factor of 20!

The coating is reinforced with a high concentration of flat, borosilicate glass flakes. Through design, the glass flakes rise to the surface as the coating cures. There they “self-leaf” forming a dense veneer of glass that completely seals the surface.

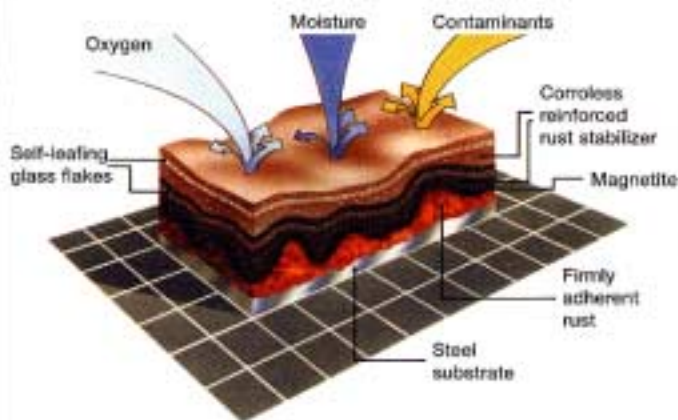
Magnetite and the Glass Flake Technology provides three additional barriers to halt chemical attack and corrosion!

The formation of magnetite on the substrate and the layer of glass flakes at the surface of the coating provides *two additional impermeable barriers* between the environment and the substrate — *three barriers* when you apply two coats!

The preferred coating for buried pipe and appurtenances
Many pipeline companies rely on Corroless EP to solve typical corrosion problems on rehabilitation jobs and new construction projects.

It is ideal as a repair patch, for coating horizontal seams and girth welds, Ts, valves, fittings, elbows and assemblies. Corroless EP is great on bare pipe, risers, fabrications, even overhead stream and river crossings. It is the perfect solution to the problem of coating transition zones. Corroless EP withstands high service temperatures of 230°F dry heat (above ground) and 175°F wet heat (buried).

Provides long-term protection in four stages



- 1 Corroless EP's water resistant resin penetrates deeply into firmly-adherent rust, forcing out all moisture and oxygen present within the rust strata.
- 2 The active anti-corrosion pigment reacts upon contact with rust and, by an electro-chemical reaction, stabilizes the rust to form magnetite. The magnetite protects the steel from moisture, oxygen and other contaminants and eliminates the risk of rust creep.
- 3 Corroless EP cures to form a tough, durable surface.
- 4 The glass flake technology serves to protect the steel from chemical and abrasive effects of the soil environment.

Corroless Glass Flake Technology



Photo micrograph shows Corroless' patented “self-leafing” technology (cross section).

Note how the glass flakes have stratified at the coating surface, forming a continuous, dense veneer of glass—400% more protection against chemical and environmental contamination.

Get amazing Corroless EP for your next rehab coating job!

Compatibility

Corroless EP is compatible with most other coatings. It has excellent adhesion properties and will tiebond with fusion-bonded epoxies, TGF, coal-tar enamels, epoxies, polyurethanes and other popular coatings. Cosmetic overcoating can be done with alkyds, enamels, polyurethanes and epoxies.

Easy to use anywhere!

Corroless EP is surface and moisture tolerant. It is applied by brush, roller or sprayed. It is available in two grades: *Temperate* and *Tropical*. The slight variations in their formulation enables pot life and drying time to be adjusted to the ambient temperatures of different geographical areas.

Corroless EP Specifications (Temperate Grade & Tropical Grade)

Generic type: Amine-cured, reinforced coal tar epoxy

Components: 2

Chemical resistance: Excellent

Abrasion resistance: Excellent

Flexibility: Very good

Temperature resistance:

wet heat (continuous) 175°F

dry heat (continuous) 230°F

Weathering: Excellent

U.V. resistance: No effect on coating's inherent properties, but color becomes muddy.

Solids by volume: 96%

Mixing ratio: 1:1 base to hardner (by volume)

W.F.T., per coat: 6.5 to 8.5 mils

D.F.T., per coat: 6.0 to 8.0 mils

Recommended number of coats: 2

Recommended final D.F.T.: 12.0 to 16.0 mils

Theoretical coverage, mixed:*

per 1-liter kit, @ 12 mils: 33.3 sq. ft.

@ 16 mils: 25.0 sq. ft.

per 5-liter kit, @ 12 mils: 166.8 sq. ft.

@ 16 mils: 125.1 sq. ft.

Pot life & drying times			
Temperate grade	pot life	touch	hard
65°F:	45 min.	6.0 hr.	16 hr.
75°F:	37	5.5	15
85°F:	30	5.0	14
Tropical grade	pot life	touch	hard
65°F:	60 min.	7.0 hr.	18 hr.
75°F:	55	6.5	17
85°F:	50	6.0	16

Application temperature range		
	Temperate	Tropical
ambient:	35°F to 86°F	77°F to 104°F
substrate:	5°F above dew point	
relative humidity:	95% maximum	

V.O.C.: 0.35 lbs/gal.

Flash point (mixed material): Above 130°F

Viscosity: @ 77°F, base: 50-55; hardner: 45-55

Dielectric strength: 548v per mil

Jeep (with ring detector): 100v per mil; maximum 1,600v

Color: Black

Gloss: Semi gloss

Shelf life: 12 months

Available sizes: 1 liter "kit" (0.26 gals.)

5 liter "kit" (1.32 gals.)

Shipping weight (composite):

1 liter kit: 4.00 lbs.

5 liter kit: 19.5 lbs.

ORDERING INFORMATION

To place orders or obtain pricing, contact Corroless-U.S.A., Inc. 1-800-977-7820.

* Coverage rates are theoretical and do not allow for any waste factor. Square foot calculations are converted for liters instead of gallons.

See Material Safety Data Sheet for user safety and transportation information.

This data sheet is designed for guidance purposes only and is based on tests believed to be accurate at the time of printing. Recommendations/information given are offered in good faith, but no warranty is implied or given. The use of this product is at the user's own risk and no liability will be accepted for damages what or howsoever the cause.

Corroless EP is manufactured to ISO 9001 standards.

APPLICATION RECOMMENDATIONS

Brush application: Apply unthinned, lay on, do not over brush.

Roller: Short nap lambs' wool cover. Thin maximum 5% with Corroshield Thinner No. 6.

Spray: Plural Component Spray Equipment is preferred. Airless Spray application: Add up to 10% Corroshield Thinner No. 6; Tip Size: 0.021, Reverse-A-Clean, 30° angle; 4000 psi; High vol. silver gun. (Graco 45.1 Bulldog is recommended.)

Notes:

1. Mix each component separately with electric drill and paddle. Combine, and mix again until color is uniform.
2. Stripe coat all sharp edges, nuts, bolts, welds, etc.
3. Apply two coats for best results.
4. If overcoating time exceeds 24 hours, clean surface with a detergent solution/clean water rinse. If overcoating exceeds 7 days, abrade surface to provide 3 mil key. Wash down with clean fresh water.

See Application Specifications (EP/AS-1) for complete details.