

TECHNICAL DATA SHEET

Document Code: TDS P1000 (2009-02)
www.epaint.com 508-540-4412



EP-Prime 1000 Two-Part Corrosion Inhibiting & Tie-Coat Epoxy Primer

General Description:

An advanced, high performance, multi-purpose, surface tolerant, and corrosion inhibiting two-part epoxy primer

Recommended Uses:

For marine and fresh water immersion service; as a corrosion inhibiting primer for metal surfaces; as a primer for any ePaint antifouling coating; as a tie-coat over previously primed surfaces and fiberglass to promote adhesion of ePaint antifouling coatings.

Not Recommended For:

use solely as a barrier coating to prevent osmotic blistering of fiberglass hulls; application over existing antifouling paints.

Number of Coats:

For corrosion protection of bare metal surfaces apply two coats. For use as a tie-coat, apply only one coat.

Film Thickness:

For bare metal surfaces, primer should be applied holiday-free, with each coat at a wet film thickness (WFT) of 6-8 mils (for 4-5 mils dry). For use as a tie-coat, a thin mist coat at a WFT of 4-6 mils (for 3-4 mils dry) will be sufficient.

Climate:

Only apply EP-Prime 1000 if the substrate temperature and ambient air temperature are above 40°F (4.4°C). Do not paint when substrate is wet from rain or dew, or when surfaces are <5°F (3°C) above dew point or when relative humidity is >85%.

Surface Preparation:

Adhesion of any coating depends on proper surface preparation. Substrate shall be free of oil, dust, dirt, grease, and salt/chloride contamination before blasting or abrading. Cleanliness is the most important step to achieve a coating system that will perform and last. After abrading any surface, remove dust and debris.

Metal Surfaces: All direct to metal coatings provide maximum performance over blasted surfaces. Metal surfaces should be prepared to no less than a near-white metal cleanliness in accordance with NACE 2, SSPC-SP-5, SA 2.5 specifications. Abrasive blast or mechanically abrade with 80 grit aluminum oxide paper to achieve a 1.5-2.5 mil (38-63 micron) depth profile and be a sharp, jagged pattern as opposed to a "peen" pattern from shot-blasting. Immediately apply a full coat of ePaint EP-Prime 1000 primer.

Fiberglass Surfaces: Mechanically abrade with 80 grit aluminum oxide paper to achieve a roughened surface profile.

Previously Primed Epoxy Surfaces:

Mechanically abrade with 80 grit aluminum oxide paper to achieve a roughened surface profile.

Mixing:

EP-Prime 1000 is packaged in two containers, Part A (resin) and Part B (curing agent). Power mix Part A to obtain a smooth homogenous mixture. Add the Part B slowly into the Part A with continued agitation. Continue to mix the components until a smooth homogenous mixture results. The entire contents of each container must be mixed together. Allow the material to stand for 15 minutes at 75°F (24°C) prior to use. Always stir prior to use.

Pot Life & Shelf Life:

Pot life for EP-Prime 1000 at 70°F (21°C) is approximately 4 hours. Colder temperatures will increase the pot life and warmer temperatures will decrease the pot life. If material thickens, do not thin, discard and use fresh material. Keep cans out of direct sunlight. It is recommended that unopened EP-Prime 1000 be used within 2 years of purchase.

Thinning:

Not generally required. If thinning is required for viscosity reduction or to obtain a smoother finish, use only ePaint EP-10 thinner. Any thinning of solvents should be made after the two primer components are thoroughly mixed. Do not thin EP-Prime 1000 more than 10% by volume.

Application:

EP-Prime 1000 may be applied by traditional painting techniques; spray is preferred for the smoothest finish and film build control. For metal surfaces, the first coat of EP-Prime 1000 must be applied immediately after preparing surface. The second coat of EP-Prime 1000 may be applied after 4.5 hours at 70°F but within 7 days to avoid additional surface preparation. Read relevant antifouling paint TDS instructions before painting.

Air Spray: use a "mastic" gun, fluid tip of 0.70" or larger and an air cap with good break-up. The fluid pressure should be kept low to prevent overspray problems. The compressed air source must be dry and should be outfitted with air dryers for moisture-free air.

Airless Spray: use an airless pump capable of 3000 psi (207 bar) and 0.021" to 0.025" tip size for a good spray pattern. Fluid hose should not be less than 3/8" ID and not longer than 50'. Longer hose length may require increased pump capacity, pressure and/or thinning.

Roll Application: use a clean synthetic roller with 1/4" to 1/2" nap. New rollers should be thoroughly wet with ePaint EP-10 thinner and spun to remove loose fibers. Keep replacement rollers on hand. Rolling may require multiple coats to achieve correct film build.

Antifouling Coating Application:

Read relevant antifouling paint TDS instructions before painting.

Solvent-based Antifouling Coatings: (i.e. SN-1, SN-1 HP, ZO, ZO HP and EP-21) apply first coat of antifouling paint when the last coat of EP-Prime 1000 has reached the "tack-free but soft-to-finger pressure" curing stage, usually 2-4 hours at 70°F. If primer has cured too hard and painting window has passed, see *Repair* section below.

Water-based Antifouling Coatings: (i.e. EP-2000, Ecominder) apply first coat of antifouling paint when the last coat of EP-Prime 1000 has dried hard and solvent has evaporated (17 hr @ 70°F) but before it has fully chemically cured (24 hr @ 70°F). If outside 24 hr and painting window has passed, see *Repair* section below.

Repairs:

For unpainted areas, such as under blocks, prepare surface as noted in *Surface Preparation* section, feather out painted surface 2" around bare area and follow instructions in *Application* section. If window for application of antifouling paint has passed and the primer application is less than 7 days, apply a tie-coat of EP-Prime 1000. If primer application has exceeded 7 days or has been contaminated, remove contamination, mechanically abrade surface, remove dust and debris by rinsing with clean water (do not solvent wipe as it may melt created profile), allow to thoroughly air dry and apply another coat of EP-Prime 1000.

Cleanup:

Purge and clean spray equipment immediately after the final spray. Flush equipment with EP-10 thinner until solvent sprays clear. Dispose of any unused materials according to Federal, state and local laws.

Safety:

See individual product label for safety and health data. A Material Safety Data Sheet is available for download online at www.epaint.com or a facsimile may be requested by calling ePaint at 508-540-4412.

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Features	Recommended Uses
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|---|---|
| <ul style="list-style-type: none">• Exceptional corrosion protection• Suitable for marine or fresh water immersion service• Surface tolerant• Cures at low temperatures• Excellent adhesion• Low VOC and high solids | <ul style="list-style-type: none">• For immersion service• For use as a primer for any ePaint antifouling coating• For use as a corrosion inhibiting, protective barrier coating for metal surfaces |
|---|---|

Specification Data

Coating Type: 2-Part Corrosion Inhibiting Epoxy

Packaging: 1 Gallon (3.79 Liter) Kit
(0.80 gal base, 0.20 gal hardener)

Mixing Ratio:
By Volume: 4 parts of Part A to 1 part of Part B

Colors: ePaint Number

Oxide Red P1000-505
Haze Gray P1000-705
White P1000-405

Thinner: Generally not required. If needed use only ePaint EP-10 thinner

VOC: 2.40 lb/gal (290 g/liter)

Application: Traditional painting techniques, spray for smoothest finish possible

Flash Point: 100°F (38°C) when catalyzed

Pot Life: 4 hours at 75°F (24°C) & 50% R.H.

Induction: 15 min at 75°F (24°C) & 50% R.H.

Shelf Life: 2 years unopened

Recommended Number of Coats:

For corrosion protection, two full coats.
For tie-coat, one thin mist coat

Recommended Dry Film Thickness DFT:

For corrosion protection, a total of 8 to 10 mils

Solids By Volume: 68% ± 2%

Theoretical Spreading Rate:

1090 ft²/gal at 1 mil dry film thickness
182 ft²/gal at 6 dry (8 wet) mil film thickness
136 ft²/gal at 8 dry (10 wet) mil film thickness

Recoat Interval:

Surface Temperature	40°F	60°F	80°F
Min. Recoat Over Self	11 hr	6 hr	3 hr
Max. Recoat Over Self	7 days	7 days	7 days
Solvent-based ePaint Antifoulant Application	Apply when primer is "tack-free but soft-to-finger pressure"		
Water-based ePaint Antifoulant Application	Apply when primer has dried hard but within 24 hours		

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