



Manufacturers of High Performance Industrial Coatings

MARINE-590 HI-BUILD FLAKE FILLED WET SURFACE EPOXY COATING

PRODUCT DESCRIPTION

A 100% solids, two component Epoxy Coating. Marine-590 provides very low permeability along with excellent impact and abrasion resistance. Formulated with a unique moisture insensitive polymer, Marine-590 may be applied on wet surfaces, or underwater without effect on cure. A special resin modification produces a low modulus, flexible film, making Marine-590 ideal for painting steel and concrete surfaces.

PRODUCT FEATURES

1. Self priming - no primer needed.
2. Ideal for marginally prepared surface.
3. High film build - 20 mil DFT per coat on horizontal surfaces.
4. May be applied on wet or under water surfaces.
5. Cures down to 35°F.
6. Ideal as a manhole coating.
7. Outstanding impact, flexibility and abrasion.
8. Excellent coating for wet ends of paper machines.
9. Meets all EPA and other air pollution regulations.
10. USDA Approved.

TECHNICAL DATA

COLORS: White, Lt. Gray, Med. Gray

FINISH: Gloss

VOLUME SOLIDS: 100%

COVERAGE (Theoretical): 1,604 sq. ft. at
1.0 mil DFT

RECOMMENDED FILM THICKNESS: Two coats
at 5-12 dry mils @ 130-320 sq. ft. per gal.

MIXING RATIO: 3:1 by volume. Mix 3 parts
Base (Part A) with 1 part Hardener (Part B)

INDUCTION TIME: None

THINNING: S-74 Reducer

POT LIFE: 20-30 minutes @ 75°F

CLEAN UP: SA-17 or S-74

APPLICATION: Spray, roll or brush

APPLICATION TEMPERATURE: 40°F - 120°F

DRY SERVICE TEMPERATURE: 180°F

SHELF LIFE: 1 year minimum

PACKAGING: 1 gallon and 4 gallon kits

available for larger orders

V.O.C.: 0 GMS/L

*Gloss will exhibit slight variation in brush or rolled film due to orientation of fillers. This does not affect product performance.

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CHEMICAL RESISTANCE – SPLASH & SPILLAGE

Acetic Acid, 5%
Aqueous Salt Solutions
Ammonium Hydroxide, 10%
Black Liquor
Crude Oil
Distilled Water
Fresh and Salt Water
Gasoline

Hydrochloric Acid, 32%
Hydrogen Peroxide, 5%
Hydrogen Sulfide
Jet Fuel
Lactic Acid
Sodium Hydroxide, 50%
Sodium Hypochlorite, 5%
Sulfuric Acid, 60%

PRODUCT USES

Marine-590 is a true wet process Epoxy coating ideal for use in paper and pulp mills, chemical processes, waste water treatment facilities, oil rigs, fertilizer plants, all water based industrial plants, electric generating stations, ore recovery facilities, mining sites, refineries, dairies, laundries, dams, marine environments such as pilings, submarine pens, wet ends of paper machines, bleach plants, cooling towers, clarifiers, wet wells, manholes, piers, underwater applications, etc.

Ideal for upgrading the performance of existing "old paint" surfaces and for remedial painting of "less-than-ideal" surface preparations or conditions during application. Inclement weather will seldom interfere with paint schedules. When mixed with a blend of silica flour and sand, Marine-590 may be used to repair underwater, or below grade leaks in steel or concrete structures.

Perfect for use in conjunction with wet abrasive or high pressure water blast preparation. PC-590 may be applied without waiting for the surface to dry, therefore, elimination "fall out" contamination.

SURFACE PREPARATION

Best method is a near white abrasive blast (SSPC-SP10) but Marine-590 will perform well over minimally prepared surfaces depending on service requirements. Because of the lack of "standards" for minimal surface preparation, test applications should be made to determine adequate surface cleanliness and compatibility with existing paint.

- a. **Steel:** Remove oil, grease and other chemical contaminants by solvent wipe or steam cleaning. Abrasive blast to a "Commercial" (SSPC-SP6) or "Near White" (SSPC-SP10) metal finish is preferred. Will adhere to tight rust. Testing should be done to confirm suitable bonding for your application. Galvanized **Steel/Aluminum:** Solvent clean per SSPC-SP1 or steam clean. Sweep blast to achieve a minimum 1 mil profile.
- c. **Previously Painted Surfaces:** Solvent clean per SSPC-SP1 and/or power wash. Remove loose existing paint by wire brush or other hand tools. Feather edges. Make test application to check for compatibility.
- d. **Concrete:** All new concrete must be cured at least 28 days.

MIXING INSTRUCTIONS

Stir each component to a uniform consistency with an explosion proof variable speed drill with Jiffy mixer. Then mix 3 parts Base A with 1 part Hardener B for 3 minutes. Marine-590 may be reduced up to 20% with S-74 Reducer per mixed gallon. Do not apply near open flame. Do not substitute reducers.

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V.O.C.

Unthinned

0 lbs/gl
(0 GMS/Liter)

Thinned 5%

1.28 lbs/gl
(154 GMS/Liter)

Thinned 10%

1.52 lbs/gl
(183 GMS/Liter)

Thinned 20%

1.95 lbs/gl
(234 GMS/Liter)

APPLICATION PROCEDURE

Airless Spray

Gun
Pump
Tip Range
Hose

Graco

Silver Plus
33:1 Extreme
019"-.025"
1/2" ID
2500-3000 psi

Conventional Spray

Gun
Fluid Tip
Air Cap
Atomizing Pressure
Pot Pressure
Hose

DeVilbiss

MBC 510 or JGA
D
64 or 704
40 psi
50 psi
1/2" ID

When spraying, use a 50% overlapping crosshatch pattern to minimize the occurrence of pinholes. Do not apply to surfaces below 40°F or above 120°F. Do not apply over dew or frost. Do not apply if the temperature is within 5° of the Dew Point.

Brush - use a bristle brush.

Roller - medium nap phenolic core, non-shed cover.

CURE TIME

TEMPERATURE

90°F
75°F
35°F

TACK FREE

1 - 2 hours
3 - 4 hours
8 - 12 hours

MINIMUM RECOAT

4 - 6 hours
6 - 8 hours
36 - 48 hours

MAXIMUM RECOAT

3 days
7 days
10 days

Times may be longer for thickness above 5 dry mils. For safety and proper product curing, good ventilation is necessary when painting indoors or in confined areas. Be sure the batch numbers are all the same to provide uniform color. Epoxy coatings may yellow or darken during application and after final cure. This will affect the color but will have no effect on the performance of the product. Heaters that emit carbon dioxide and carbon monoxide can cause the coating to yellow.

CAUTIONS

Marine-590 Base is combustible. Keep away from all sources of ignition during mixing, application and cure. Marine-590 Hardener (Part B) is corrosive and can cause eye and skin irritation as well as allergic reactions. The use of goggles, fresh air masks or NIOSH approved respirators, protective skin cream and protective clothing is a recommended standard practice when spraying coatings. Proper ventilation is always required. This product is sold without warranty as to performance expressed or implied. Users are urged to make their own tests to determine the suitability for their particular conditions.

SEE SAFETY DATA SHEET FOR FULL SAFETY PRECAUTIONS.

**FOR PROFESSIONAL AND INDUSTRIAL USE ONLY
KEEP AWAY FROM CHILDREN. NOT FOR
RESIDENTIAL USE**

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