



Dampney Protective Coatings

Epodur® 1870 Zinc-Rich Coating

Description

Epodur 1870 protects metal surfaces with a film of sacrificial zinc in a manner similar to hot dip galvanizing. It is a zinc-rich coating based on an epoxy-ester resin. The dried film contains 93% zinc by weight. Epodur 1870 protects steel surfaces subjected to a wide variety of corrosive influences, and is particularly useful for recoating or spot-priming weathered or damaged galvanized surfaces. It has excellent recoating properties.

Uses

- Electrical transmission towers and related structures
- Structural steel: bridges, buildings, offshore rigs
- Chemical process piping and equipment
- Pulp and paper equipment
- Oil and gas production, processing, and distribution equipment

Features

- Maximum content in dry film
- Easy brush or spray application
- Simple handling-single package epoxy system
- No pot life limitation
- Easy mixing-no hard settling of pigment
- Excellent wetting and penetration properties
- Flexible films with excellent adhesion
- Air dries quickly-set to touch in one hour
- Up to 5 mils dry film thickness per coat
- Can be applied over a wider range of temperatures and relative humidities than two-component epoxies

Surface Preparation

Steel: For best results, surfaces should be free from oil, grease, dirt, mill scale, rust, corrosion products, oxides, paint and foreign matter. Abrasive blast surface to commercial grade per Steel Structures Painting Council Specification SSPC-SP6, "Commercial Blast Cleaning," or per NACE specification No. 3. If abrasive blasting can not be permitted, remove loose mill scale, loose rust, and loose paint per Specification SSPC-SP3, "Power Tool Cleaning."

New Galvanized Surfaces: remove all oil, grease and flux by solvent cleaning per Specification SSPC-SP1, "Solvent Cleaning."

Weathered Galvanized Surfaces: Remove all dirt, oil and grease by solvent cleaning. Remove rust or foreign deposits by wire brushing per Specification SSPC-SP2, "Hand Tool Cleaning", or power tool cleaning per Specification SSPC-SP3, "Power Tool Cleaning."

Mixing

Stir thoroughly until the zinc dust content is completely dispersed.

Application Guidelines

Epodur 1870 may be applied by brush, spray, or roller. Airless spray is not recommended because of possible tip clogging. Thinning is not normally required.

Steel: Apply one coat to 2.5-3 mils dry film thickness.

New Galvanized Surfaces: Apply one coat to 2.5-3 mils dry film thickness

Rusted Galvanized Surfaces: Apply a second coat to 2.5-3 mils dry film thickness, total system dry film thickness of 5-6 mils. Allow 12 hours dry time between coats.

Drying Time

At room temperature, Epodur 1870 sets to touch in one hour and may be recoated after 12 hours.

Application Equipment

Brush: Apply after thorough mixing. If thinning is required, use up to one pint, maximum of Dampney 105 Thinner per gallon. Mix thoroughly after thinner addition.

Roller: Apply after thorough mixing. Use rollers with short nap. Cross roll for uniform coverage. If thinning is required use up to one pint, maximum of Dampney 105 Thinner per gallon.

Conventional Spray Equipment: Apply after thorough mixing. If thinning is required use up to one pint maximum per gallon of Dampney 105 Thinner.

Bulletin 1870

As a guide only...

Spray Gun	DeVilbiss P-MBC or JGA
Fluid hose*	3/8" I.D.
Air hose	5/16" I.D.
Air cap	704
Fluid nozzle	FF(.055")
Pot pressure	10-15 lbs.
Atomizing pressure	45-50 lbs.
Needle adjustment	Full open
Work distance	8-10"

*Smaller diameter hoses, or hose lengths greater than 25 feet, may require increased pressure.

Storage

Store in a cool, dry place, preferably below 80°F

Clean up

Clean equipment with Dampney 100 Thinner.

Precautionary Information

Keep away from heat, sparks, and open flame. Use only with adequate ventilation. Avoid contact with eyes and skin. Avoid prolonged breathing of vapor or spray mist.

FIRST AID: In case of contact with skin, flush with plenty of water. For eyes, immediately flush with plenty

of water for 15 minutes and get medical attention. If exposed to high concentration of vapor, remove to fresh air. If swallowed, CALL A PHYSICIAN IMMEDIATELY. DO NOT induce vomiting. In confined spaces, observe safety precautions and follow procedures described in OSHA regulations.

Provide adequate forced air ventilation. Require workmen to wear NIOSH-approved air line respirator, and non-sparking footwear. Use only non-sparking tools and equipment. Use only explosion-proof lights and electrical equipment. Make certain all equipment is grounded. Use protective clothing and skin cream.

For further information on safety precautions, see appropriate Material Safety Data Sheet (MSDS).

Not Recommended For

- Do not use in severe service without topcoating. Consult your Dampney representative for recommendations.
- Immersion Service

FOR INDUSTRIAL USE ONLY

Shipping Weights	1's	2's	5's
Epodur 1870	25 lbs.	50 lbs.	
Dampney 105 Thinner	8 lbs.		40 lbs.

Technical Data

Characteristics	Endcor 1870
Color	Metallic Gray
Finish	Flat
Weight per gallon	24 lbs.
% Solids by volume	50
Theoretical coverage per gallon*	800 mil sq ft
Operating temperature range	-40°F to +180°F (dry)
Surface temperature at time of application	50°F minimum
Dry film thickness per coat	2.5-3 mils
Wet film thickness per coat	5-6 mils
Surface temperature at time of application	50°F minimum
Dry film thickness per coat	2.5-3 mils
Wet film thickness per coat	5-6 mils
Flash Point (Pensky-Martens)	101°F minimum
Drying time at 70°F	
Set to touch	1 hour
Recoat time	12 hours
Shelf Life	1 year

*Note: actual coverage rate will vary depending upon material losses during mixing and application, and upon type and condition of surface to be coated. See Bulletin 3110 "Calculating Coating Requirement" for additional information.

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