



# VCI PRIMER TECHNICAL DATA SHEET

EPOXY POLYAMIDE PRIMER FOR STEEL ASSETS  
MIL-DTL-24441/20A (SH) FORMULA 150, TYPE-ID

## DESCRIPTION

This epoxy-polyamide, two component, lead and chromate free primer coating is designed to conform the specific composition and performance requirement of Federal Specification MILDTL-24441/20A (SH) Formula- I 50, Type-III, and is recommended to be used for painting land and marine structures. Surtreat vapor phase corrosion inhibitor (VCI) is added to Part A in an amount that when combined with Part B the applied dry film solids will contain 2.5 Wt. % of VCI solids.

## PRINCIPAL CHARACTERISTICS

- Excellent rust preventative properties in adverse or chemically polluted atmospheres.
- Corrosion inhibiting properties are increased by a factor of 5 to 10 times due to addition of the VCI agent that will migrate through a rusty surface and inhibit further steel. surface corrosion.
- Will inhibit corrosion of both fresh and salt corroded steel surfaces.
- Easy application by brush and airless spray.
- Good adhesion properties on white steel when surface is abraded and on rusty steel surface due to corrosion texture and achieve adhesion rating of 5B per ASTM B 117.
- Excellent water and weather resistance for interior and exterior use.
- Resistance to spill/splash of mild chemicals.

## RECOMMENDED SUBSTRATE CONDITION

**Steel:** The surface must be perfectly dry before application.

**Corroded Steel:** Clean and degrease surface to remove surface contaminants such as oils, soils, loose paint and flakey rust by pressure washing or mechanical means. Soundly adhered surface rust can be over-coated with this product.

During application and the first 24 hours of curing, the substrate temperature must be above 41°F (5°C) and at least 5°F (3°C) above the dew point.

## PACKAGING

2 gal kits

## TECHNICAL DATA

Color and Finish	Gray, Flat
Mass Density	~11.25 lbs. / gal
Solids by Volume	63 +/- 1%
VOC (Before Thinning)	2.80 lbs. / gal or 340 gr / liter
Theoretical Spreading Rate @1 Mil DET	~ 1000 sq. ft. / gal
Recommended Dry Film Thickness	3-4 Mils (75-100 Microns)
Touch Dry (25° C / 77°F)	2-3 Hours
Dry Hard (25° C/ 77°F)	6-8 Hours
Min. Interval Before Overcoating (77°F)	8 Hrs at 3-4 Mils DFT
Max. Interval Before Overcoating (77°F)	7 Days
Full Cure After	7 Days
Temperature Resistance (Dry)	250°F/121°C
Flash Point (TCC)	Base 99°F / (38°C) Hardener 108 F / 42°C

This product is a two component material with Part A(base plus VCI-Coating Agent 12) and curing agent (Part B) normally supplied in 1 gallon cans. Prepare for use by combining the 2 containers and thoroughly mixing.

## INSTRUCTIONS FOR USE

**Mixing:** Power agitate base component to uniform consistency before combining then again after combining. Do Not vary proportions.

The temperature of the mixture of base and hardener during mixing and application should be above 59 °f (15°C), otherwise more solvents must be used to obtain application viscosity.

This results in lower sag resistance and slower cure. Thinner should be added after mixing the components. Very good mechanical mixing of base and hardener is essential in view of the paste consistency.

**Ratio:** Base to hardener 54-46 by weight  
Base to hardener 50-50 by volume

**Pot Life:** 5 Hours at 73°F (23°C)

**Application Equipment:** Conventional Spray Model Air Cap

DeVilbiss MBC or JGA 704E

Binks #18 or #62 66PE

Fluid hose should be 3/8" I.D. with a maximum length of 50 feet. Pot should always have dual regulation and be kept at the same elevation as spray gun.

**Airless Spray Model Pum:** DeVilbiss JGN-501 QFA-519, Binks Model 500 Mercury 5C, Graco 205-590 Bulldog  
Hose should be 3/8" I.D. minimum, but whip end section may be used for ease of application.  
A maximum length of 100 feet is suggested. Best results will be obtained using a .018" - .021" tip at 2400 to 2700 p.s.i.

**Recommended thinner:**

MIL-24441 THINNER

Airless Spray: Thinner 0 to 10% by Volume  
Conventional Spray: 5 to 15% by Volume  
Roller and Brush: 0 to 5% by Volume

Clean Up: MIL-24441 Thinner

## CAUTION AND SAFETY

Contains Flammable Solvents. Keep away from sparks and open flames. Use only grounded explosion proof equipment in accordance with the National Electric Code. Workmen must use nonferrous tools; wear non-conductive and non-sparking shoes in areas where explosion hazards exists. In confined areas, workmen must wear fresh airline respirators, protective clothing and gloves. Avoid contact with skin, breathing of vapor or spray mist ingestion. Keep out of reach of children.

**Handling:** VCI PRIMER is to be applied by professional contractors only. All applicators should wear OSHA and NIOSH recommended protective equipment. Do not use or dilute the product in closed areas without adequate ventilation. Immediately close the container after removal of the solution. Avoid contact with skin, eyes and clothing. Do not smoke, eat or drink during application. Wash thoroughly after handling. Keep out of reach of children. Do not inhale or ingest or modify the solution. Refer to MSDS.

**Clean Up:** Wash hands & tools with soap & water immediately after use. Store unused powder tightly sealed in original container. Dispose of hardened product in accordance with local, state & federal requirements.

**Precautions:** KEEP OUT OF REACH OF CHILDREN. DO NOT SWALLOW. Use with adequate ventilation. Avoid mist and direct contact with eyes, skin and clothing. Wear suitable protective goggles, gloves, and clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel ill, seek medical advice. Wash clothing prior to re-use.

## LIMITED WARRANTY NOTICE

Every reasonable effort is made to apply Surtreat® exacting standards both in the manufacture of our products and in the information that we issue concerning these products and their use. We warrant our products to be of good quality and will replace any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement, Surtreat® MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANT ABILITY, RESPECTING ITS PRODUCTS, and Surtreat® shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one (1) year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of the Surtreat® Technical Manager.

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