

## DIMETCOTE® 21-5

February 2012  
Revision of November 2011

<b>DESCRIPTION</b>	Water based Inorganic Zinc Silicate Primer
<b>PRINCIPAL CHARACTERISTICS</b>	<ul style="list-style-type: none"> <li>– Zero VOC formulation</li> <li>– &gt;85% zinc in dry film</li> <li>– Provides outstanding corrosion resistance</li> <li>– Abrasion resistant</li> <li>– Resistant to dry film temperatures of up to 750 0F</li> <li>– Recommended for ISO 12944 C5I and C5M Conditions</li> </ul>
<b>COLOR AND GLOSS</b>	<p>Gray</p> <p>Flat</p>
<b>BASIC DATA</b>	
Volume solids	62% ± 4% (based on applied film, including porosity)
VOC	0 lbs/gal (0 g/L)
Recommended Dry film thickness* (per coat)	2 – 5 mils (50 – 125 microns)
	<i>* Applications up to 6 mils are acceptable with random spot readings up to 9 mils. For high temperature applications, a maximum of 3 mils is allowed</i>
Theoretical Spread Rate	<p>@ 1 mils 1,010 ft<sup>2</sup>/gallon</p> <p>@ 3 mils dft 336 ft<sup>2</sup> / gallon</p>
Components	2 (liquid, zinc powder)
Shelf Life	Liquid and powder – 24 months from date of manufacture when stored indoors in the original unopened container. Storage temperature should be 40-100°F and in dry conditions.
<b>SURFACE PREPARATION</b>	Coating performance is proportional to the degree of surface preparation.
Steel	<ul style="list-style-type: none"> <li>– Round off all rough welds and sharp edges. Remove weld spatter. Abrasive blast with an angular abrasive to SSPC SP-10 or higher with a 1.0-3.0 mil surface profile. Higher surface profiles up to 5 mils are acceptable, but the product must be applied in a thickness great enough to achieve a minimum of 2.5 mils dry film thickness.</li> </ul> <p>Apply <i>Dimetcote</i> 21-5 as soon as possible after blasting to avoid rusting or other contamination. Do not wait more than 6 hours between blasting and coating. Maintain relative humidity below 75% during blasting and prior to coating application. Do not leave blasted steel uncoated overnight. Keep moisture, oil, grease, or other organic matter off surface before coating. Take care not to touch blasted surfaces.</p>
<b>ENVIRONMENTAL CONDITIONS</b>	
Ambient temperatures	40°F to 120°F (5°C to 49°C)
Material temperatures	40° to 90°F (10° to 32°C)
Relative humidity	85% maximum (curing times can double from 70% to 85% relative humidity. Low humidity conditions are favorable for water based inorganic zinc.)
Surface temperature	<p>40°F to 130°F (5°C to 54°C)</p> <p>Surface temperature must be at least 5°F above the dew point temperature.</p>
General air quality	Area should be sheltered from airborne particulates and pollutants. Ensure good ventilation during application and curing. Provide shelter to prevent wind from affecting spray patterns. Curing in stagnant air conditions will lead to a smooth, glazed finish that will require abrading prior to overcoating.

## DIMETCOTE 21-5

### INSTRUCTIONS FOR USE

**Mixing** Only mix full kits. Pre-mix base component with a pneumatic air mixing at moderate speeds to homogenize the container. Add powder component slowly under agitation until fully mixed. Strain the mixture from one container to another through a 30 mesh filter/strainer to remove any undispersed lumps.

**Pot life**

Temperature	50°F	70°F	90°F
<i>Dimetcote 21-5</i>	12 hours	8 hours	5 hours

*\* Maintain agitation throughout application to prevent settling of the zinc. Protect product from moisture contamination*

**Airless spray**

Ensure equipment is completely clean and free of any solvent based thinners. Dedicated airless equipment is highly recommended. WIWA Model # 34020 20:1 pump with integral agitated feed tank. WIWA 500F spray gun. A 0.021 tip size is recommended. Use a 1/4" fluid line with a maximum of 50 feet. Avoid delays in spraying and recirculate or flush line as needed to prevent settling. Adjust pressure as needed. Flush thoroughly with clean water immediately after use.

**Air spray**

Ensure equipment is completely clean and free of any solvent based thinners. Industrial equipment such as DeVilbiss MBC 510 with a 64 air cap. Use a heavy mastic spring and leather packing to avoid sticking and packing of the fluid needle and tip. A pressure pot with variable speed agitator, oil and water trap and separate air and fluid regulators should be used. Instead of a pressure pot, a low pressure feed pump with recirculating lines can be used. Limit fluid hose length to 50 feet. Promptly flush/clean with clean water after use.

**Brush & roll**

Use a high quality natural bristle. Brush application is only recommended for small touch up and/or repair areas. Roller application is not recommended.

**Repair**

When dry though, measure the dry film thickness. If film thickness is lower than specified, apply additional material as soon as possible, but not to exceed 24 hours from the previous application. Ensure any dry spray is removed.

For aged inorganic zinc coatings, spot blast rusted areas in accordance with the surface preparation instructions before touching up with *Dimetcote 21-5*. When blasting is not practical, *Amercoat 68HS* or *Dimetcote 302H* may be used for repair.

**Thinner**

Not normally necessary. If necessary, thin with clean water at a maximum of 2 ounces per gallon.

**Cleaning solvent**

clean water

**Primers**

Direct to metal

**Topcoats**

*PSX 700, Amerlock 2/400 or 2VOC/400VOC, Amercoat 385, Amercoat 370, Amercoat epoxies, Amercoat 741*

A mist coat / full coat application technique is required when topcoating to prevent application bubbling. Lightly rub dry spray from the surface prior to overcoating.

Product can be specified as a single coat system in certain applications.

**Safety precautions**

For paint and recommended thinners see safety sheet 1430, 1431 and relevant material safety data sheets

This is a solvent borne paint and care should be taken to avoid inhalation of spray mist or vapor as well as contact between the wet paint and exposed skin or eyes.

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### DRY/CURE TIMES

Dimetcote 21-5 @ maximum 70% relative humidity

	40°F	50°F	70°F	90°F
Dry to touch – 3mils	5 minutes	4 minutes	3 minutes	2 minutes
Dry to handle – 3 mils	22 minutes	13 minutes	6 minutes	3 minutes
Dry to recoat* (self) 3 mils	22 minutes	13 minutes	6 minutes	3 minutes
Dry to topcoat* – 3 mils	72 hours	48 hours	24 hours	12 hours
Dry to topcoat* – 6 mils	120 hours	72 hours	36 hours	24 hours
Dry to topcoat* – 9 mils	180 hours	120 hours	72 hours	36 hours
Non-immersion water contact ** – 3 mils	72 hours	48 hours	24 hours	12 hours
Non-immersion water contact ** – 6 mils	5 days	72 hours	36 hours	24 hours
Non-immersion water contact ** – 9 mils	7.5 days	5 days	72 hours	36 hours
Cure to solvent splash & spill – 3 mils	24 hours	16 hours	8 hours	5 hours
Cure to solvent splash & spill – 6 mils	48 hours	32 hours	16 hours	9 hours
Cure to solvent splash & spill – 9 mils	72 hours	48 hours	24 hours	12 hours
Maximum overcoat	Unlimited*			

\* Surface must be clean and dry. Surface must be power washed as needed to remove all surface contaminants including zinc salts and alkaline salts formed during the curing process. In all cases, it is necessary to rinse the steel to remove alkaline salts prior to exterior storage. It is highly advisable to rinse the steel prior to topcoating when steel will be subject to ponding water or condensation from high humidity conditions in service. should be done with clean water until the surface pH is 8 or lower as measured in several locations. If surface glaze develops during cure, it is necessary to abrade the surface prior to topcoating. All dry spray must be removed from the surface by screening or light abrading.

\*\* Cure to non-immersion water contact indicates the degree of curing that allows for rinsing with water to remove alkaline salts. Steel should be allowed to dry thoroughly after rinsing.

### PRODUCT QUALIFICATIONS

- SSPC Paint 20, Type IC , Level 1
- RCSC Class B Slip Coefficient for High Strength Bolted Connections
- Zinc Dust meets ASTM D520 Level 3 standards
- AASHTO M300

### AVAILABILITY

Packaging  
Product codes

Available in 1-gallon and 5-gallon kits  
DI2154-A Liquid component  
DI2154-P Zinc Powder component

Worldwide statement

While it is always the aim of PPG Protective & Marine Coatings to supply the same product on a worldwide basis, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

## DIMETCOTE 21-5

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