



Performance Coatings & Finishes

# Dimetcote® 21-5

*Water-based inorganic zinc silicate primer*

*DIMETCOTE – For 50 years the premier name in corrosion protection is now also the leader in environmental innovation.*

## Product Data

- Water only formulation means:
  - Zero VOC
  - No flammability hazard
  - No solvent vapor hazard
- Unique silicate binder technology provides:
  - Resistance to mudcracking up to 12 mils
  - Rapid water resistance
  - Fast drying and handling
  - No lead pigments added

Dimetcote 21-5 represents a breakthrough in water-based inorganic zinc-silicate technology and ushers in a NEW GENERATION of easy to use IOZ primers. Based on a unique silicate binder formulation, this material has greatly improved application thickness tolerance.

## Typical Uses

Dimetcote 21-5 is generally applied as a single coat primer with or without topcoats. It will provide long-term protection on a variety of steel construction such as bridges, cranes, offshore platforms or any fabricated structure exposed to severe weathering, marine environments or moderate chemical fumes.

## Recommended Topcoats

Amercoat® 335 or 385

Amerlock® 400, 400FD

Amercoat 220 with Amercoat 856 additive

## Typical Properties Performance

Salt spray (ASTM B117)	6500 hrs
face corrosion	None
face blistering	None
Humidity (ASTM D4585)	720 hrs
face corrosion	None
Florida exposure	4 years
face corrosion	None
Abrasion (ASTM D4060)	
1 kg load/1000 cycles	weight loss
CS 17 wheel	40 mg
Adhesion, Elcometer	
ASTM(D4541)	1000 psi
Impact (ASTM G14)	>160 in. lbs

## Physical Data

Finish	Flat	
Color	Green, gray, light gray	
<i>Note: At temperatures over 350°F the Dimetcote 21-5 green color will change to gray.</i>		
Components	2	
Curing mechanism	Water evaporation and chemical reaction between components	
Dry film thickness per coat	3 mils (75 microns)	
Coats	1	
Theoretical coverage	ft <sup>2</sup> /gal	m <sup>2</sup> /L
1 mil (25 microns)	1010	24.8
3 mils (75 microns)	336	8.3
VOC	0.0 lb/gal	0.0 g/L
Temperature resistance	Dry	
continuous	°F	°C
	750	382
Flash point	Not applicable	

## Application Data

Applied over	Prepared steel or galvanizing		
Surface preparation	SSPC-SP5 or 10		
Method	Airless, conventional spray		
Mixing ratio			
1 gal	16.8 lbs powder to 0.7 gal liquid		
5 gal	84.0 lbs powder to 3.5 gal liquid		
Pot life (hours)			
°F/°C	90/32	70/21	50/10
	5	8	12

## Environmental conditions

Temperature	°F	°C
air	40 to 120	4 to 49
surface	40 to 130	4 to 54
Relative humidity during application and initial drying		
maximum	85% at 70°F	

Surface temperatures must be at least 5°F (3°C) above dew point to prevent condensation. At freezing temperatures surface must be free of ice.

## Qualifications

### AASHTO – M300

AASHTO – Standard Specification for Highway Bridges Table 10.32.3C Allowable Load for Slip Critical Connections Class B

AISC – Specification for Structural Joints Using ASTM A325 or A490 Bolts RCSC Specification for Structural Joints Table 3 Class B

## Application Data Summary

See Application Instructions for complete information on surface preparation, environmental conditions, application procedures and equipment. Conventional and specific airless spray equipment are recommended for this product. To obtain maximum performance, apply as recommended. Adhere to all safety precautions during storage, handling, application and drying periods.

## Safety Precautions

Read each component's material safety data sheets before use. Mixed material has hazards of each component. Safety precautions must be strictly followed during storage, handling, and use.

***This product is for professional use only. Not for residential use.***

## Warranty

Ameron warrants its products to be free from defects in material and workmanship. Ameron's sole obligation and Buyer's exclusive remedy in connection with the products shall be limited, at Ameron's option, to either replacement of products not conforming to this Warranty or credit to Buyer's account in the invoiced amount of the nonconforming products. Any claim under this Warranty must be made by Buyer to Ameron in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life, or one year from the delivery date, whichever is earlier. Buyer's failure to notify Ameron of such nonconformance as required herein shall bar Buyer from recovery under this Warranty.

**Ameron makes no other warranties concerning the product. No other warranties, whether express, implied, or statutory, such as warranties of merchantability or fitness for a particular purpose, shall apply. In no event shall Ameron be liable for consequential or incidental damages.**

Any recommendation or suggestion relating to the use of the products made by Ameron, whether in its technical literature, or in response to specific inquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyers having requisite skill and know-how in the industry, and therefore it is for Buyer to satisfy itself of the suitability of the products for its own particular use and it shall be deemed that Buyer has done so, at its sole discretion and risk. Variation in environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results.

## Limitation of Liability

Ameron's liability on any claim of any kind, including claims based upon Ameron's negligence or strict liability, for any loss or damage arising out of, connected with, or resulting from the use of the products, shall in no case exceed the purchase price allocable to the products or part thereof which give rise to the claim. **In no event shall Ameron be liable for consequential or incidental damages.**

Drying time (ASTM D1640) @ 70% RH\* (minutes)

	°F/°C			
	90/32	70/21	50/10	40/4
touch	2	3	4	5
handle	3	6	13	22
recoat	3	6	13	22

**Time to water insolubility @ 70% RH\* (hours)**

@ 3 mils	1/4	1/2	3/4	1
@ 6 mils	1/2	1 1/2	2	3
@ 9 mils	3/4	2	3	4 1/2

**Topcoat (hours)**

@ 3 mils	12	24	48	72
@ 6 mils	24	36	72	120
@ 9 mils	36	72	120	180

**Cure for continuous water contact (non-immersion)**

**@ 70% RH\* (hours)**

@ 3 mils	12	24	48	72
@ 6 mils	24	36	72	120
@ 9 mils	36	72	120	180

**Cure for solvent splash and spill resistance**

**@ 70% RH\* (hours)**

@ 3 mils	5	8	16	24
@ 6 mils	9	16	32	48
@ 9 mils	12	24	48	72

*\*Above 70% relative humidity up to the maximum of 90%, time will double.*

Equipment cleaner

Water

## Shipping Data

Packaging units	1-gal	5-gal
liquid	6.94 lbs in 1-gal can	34.69 lbs in 5-gal can
powder	16.8 lbs in 1-gal can	84.0 lbs in EnviroPac

Shipping weight (approx)

	lb	kg
1-gal unit		
liquid	7.6	3.5
powder	17.6	8
5-gal unit		
liquid	38	17.3
powder	89	40.5

Shelf life when stored indoors at 40 to 100°F (4 to 38°C)

liquid	1 year from shipment date
powder	2 years from shipment date

Protect from freezing.

Numerical values are subject to normal manufacturing tolerances, color and testing variances. Allow for application losses and surface irregularities.

Mixed product is nonphotochemically reactive as defined by South Coast Air Quality Management District's Rule 102 or equivalent regulations.

Dimetecote 21-5 standard liquid is clear; the light gray liquid is cloudy when stirred (white pigment) and the green liquid is cloudy when stirred (yellow pigment).



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