

FORMULATION CI-101

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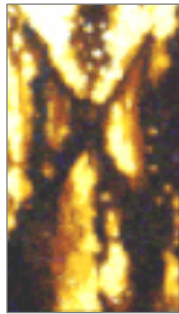
**WATERBORNE ACRYLIC PRIMER
 NACORR® SYNERGY with HALOX® SZP-391**

This formulation demonstrates the synergistic effect of using NACORR corrosion inhibitors with strontium zinc phosphosilicate. Improved corrosion resistance is seen compared to the control and the anti-corrosive pigment by itself.

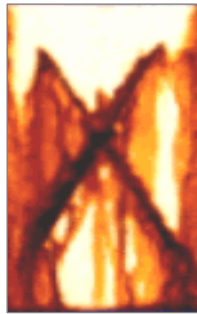
MATERIAL	DESCRIPTION	WEIGHT %
GRIND (Disperse at high speed to 5+ Hegman)		
TAMOL® 681 ¹	Dispersant	1.0
SURFYNOL® 104A ²	Surfactant	0.2
ACROSOL® RM-825 ¹	Rheology modifier	0.1
BUBBLE BREAKER® 3056A ³	Defoamer	0.1
Calcium Carbonate	Pigment extender	13.6
Titanium Dioxide	Pigment	5.3
HALOX SZP-391 ⁴	Anti-corrosive pigment	3.6
Water		7.1
LETDOWN		
AQUAMAC® 700 ⁵	Styrene acrylic emulsion	56.0
AMP 95 ⁶	Neutralizing amine	0.3
TEXANOL® ⁷	Ester alcohol cosolvent	5.1
4% Sodium Nitrite	Flash rust inhibitor	0.9
Water		2.7
NACORR Solution		4.0
	TOTAL	100.0
<u>NACORR SOLUTION</u>		
NACORR 1651 or 1351	Corrosion inhibitor	50.0
AMP 95	Neutralizing amine	5.0
TEXANOL	Ester alcohol cosolvent	45.0
	TOTAL	100.0

PAINT PROPERTIES	
Solids, % by weight	48.5
Solids, % by volume	37.0
Weight per gallon, lbs./gal.	10.06
Pigment to binder ratio	0.86
pH	8.5-9.0
Cure schedule	Ambient air dry for 10 days
Dry film thickness, microns, (mils)	25 - 30 (1.0-1.2)
Substrate	Iron phosphated steel

TEST RESULTS: 500 Hours Salt Fog Exposure



Control



+ HALOX[®] SYP-391



+ HALOX SYP-391
+ NACORR[®] 1651



+ HALOX SYP-391
+ NACORR[®] 1351

TEST METHODS	
Salt fog exposure – 5% sodium chloride fog, 100°F	ASTM B117-90

SUPPLIER REFERENCES	
1.) The Dow Chemical Company – Ammonium salt of Carboxylic acid; Urethane associative thickener	5.) Hexion Specialty Chemicals – 45% solids, T _g = 45°F, min. film forming temp. = 56°F
2.) Air Products and Chemicals, Inc. – Tetramethyl Decynediol and 2-ethyl hexanol	6.) Angus Chemical Company, a subsidiary of The Dow Chemical Company – 2-amino-2-methyl-1-propanol
3.) Witco Corporation	7.) Eastman Chemical Company
4.) Halox Pigments	
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