

FORMULATION CI-102

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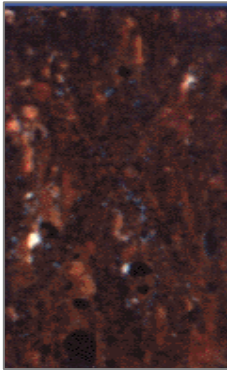
**WATERBORNE ACRYLIC PRIMER
 NACORR® SYNERGY with HALOX® SW-111**

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

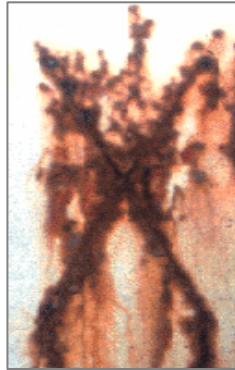
MATERIAL	DESCRIPTION	WEIGHT %
GRIND (Disperse at high speed to 5 Hegman)		
JONCRYL® 56 ¹	Acrylic polymer	12.7
BYK® 020 ²	Defoamer	0.2
Platy Talc	Pigment extender	4.6
Titanium Dioxide	Pigment	4.4
HALOX SW-111 ³	Anti-corrosive pigment	7.3
Water		3.1
LETDOWN		
JONCRYL® SCX-1520 ¹	Acrylic emulsion	49.5
2-Butoxyethanol	Cosolvent	4.6
BUTYL CARBITOL® ⁴	Cosolvent	1.5
SURFYNOL® 104H ⁵	Surfactant	0.5
BYK 020	Defoamer	0.1
10% Ammonium Benzoate	Flash rust inhibitor	2.9
13% DMEA solution	Neutralizing amine	4.6
NACORR Solution		4.0
	TOTAL	100.0
NACORR SOLUTION		
NACORR 1651	Corrosion inhibitor	50.0
DMEA	Neutralizing amine	5.0
2-Butoxyethanol	Cosolvent	45.0
	TOTAL	100.0

PAINT PROPERTIES	
Solids, % by weight	41.2
Solids, % by volume	31.4
Weight per gallon, lbs./gal.	9.54
Pigment to binder ratio	0.68
pH	8.2
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® SW-111



+ HALOX SW-111
+ NACORR® 1651

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

SUPPLIER REFERENCES	
1.) BASF Resins – 27% solids, acid number 10; 45% solids, acid number 33	4.) The Dow Chemical Company - Diethylene Glycol Butyl Ether
2.) BYK-Chemie USA	5.) Air Products and Chemicals, Inc. – Tetramethyl Decynediol and ethylene glycol
3.) Halox Pigments	
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