

SUPERIOR PRODUCTS INTERNATIONAL II, INC.

RUST GRIP®

SALT SPRAY TESTING (2 testing programs)

Test #1. ASTM B 117 testing at 500 hours with scribe.

Conclusions: Did not exhibit any significant blistering or rusting in the overall areas. All RUST GRIP coated panels did not exhibit any blistering at the scribe line which would eventually lead to film undercutting or delamination at the scribe. Test Plate Picture:



Shows no sign of undercutting and bubbles along scribe. RUST GRIP penetrates and becomes part of the metal surface to prevent the undercutting and deterioration from corrosion development.

Following is the results of the same ASTM B 117, 500 hour testing on competing products: Taken from the Rust Bullet® Website.

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500 Hour Accelerated Weathering Test

Rust Bullet® was scientifically tested against the six main ingredients that virtually all rust/corrosion products contain, using the market leaders as comparisons.

Tested according to the American Society for Testing Materials (ASTM) Standards and the more stringent specifications of the United States Navy.



Rust-oleum® Rusty Metal Primer Topcoated with Rust-oleum® Gloss Enamel



Rust-oleum® Rust Reformer Topcoated with Rust-oleum® Gloss Enamel



Naval Jelly® Rust Neutralizer Topcoated with Napa Ruf-Nek HD Spray Paint



Rust Bullet®
No Topcoat



Zinc-Chromate Primer Topcoated with Zynolyte Urethane



POR-15® System Topcoated with Napa Ruf-Nek HD Spray Paint



Control Panel (Unprotected Metal)



Rust-oleum®
Cold Galvanizing Compound



Hammerite® Rust Cap



Wasser® Brand System

Rust Bullet® has been Awarded an Unprecedented Two United States Patents.







500 Hour Accelerated Weathering Test Comparison of the Individual Panels

Panel 3

MAIN	PANEL 1	PANEL 3	PANEL 4	PANEL 5	PANEL 6	PANEL 7	PANEL 8	PANEL 9	PANEL 10
0.	PLAY VIDEO								

PLAY VIDEO PLAY VIDEO





"The Rust Bullet® panel has slight blistering and undercutting along the scribe lines and none around the hole or the edges. There is slight discoloration and some loss of gloss retention." -- <u>as written from the Rust Bullet® website</u>. ".....Rust-oleum® Rust Reformer panel is approximate 85% failure".



Additional notes from the testing results from the Rust Bullet® site:

Panel #8: POR-15®, a four step system. It is the third best test panel in the testing series. As you can see, significant blistering and undercutting are proceeding from the scribe lines and there is moderate undercutting round the hole and the edges.

Panel #6: Wasser® Brand System panel is the second best test panel in the series and represents the peek of old technology. A significant rusting and undercutting is taking place at the hole and the edges, which indicates the difficulty of the system in covering sharp edges and corners. The scribe lines are undercutting as well. Like test panel #5 (Rust-oleum® Cold Galvanizing Compound), the three step Wasser® process utilizes a zinc rich under coat that provides a degree of galvanic protection, which is what allows the Wasser® System to do as well as it has done. Keep in mind that the use of a zinc metal undercoat brings along most of the problems of a zinc rich primer system, including environmental issues.

Panel #5: Rust-oleum® Cold Galvanizing Compound provides a higher degree of protection than the other coatings. Zinc particles are providing a degree of galvanic protection, but as you can see on the corners and the bottom of this panel, it has almost no abrasion resistance. The resin wash out will accelerate the process of decay.



Test #2: ASTM B 119 Accelerated salt/UV testing.

RUST GRIP has passed 15,000 hours with 6 plates with 6 mils of single applied coating.

Result / conclusions: Perfect 10 score, no blemishes, no rust, no bubbles.

No other competing products has performed to this level.

Picture of one of the test plates:



Report Copies:







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Independent Testing and Consulting Laboratory Serving the Coatings, Scalant, Waterproofing and Building Materials Industries Since 1932

January 12, 2011

Superior Products International II, Inc. 10835 W. 78th Street Shawnee, KS 66214

Att: Mr. Craig R. Smith Technical Director

Re: DL-16254

Via E-mail: crsmith@spicoatings.com

OBJECTIVE

To evaluate the salt spray resistance of coated steel panels.

PRODUCT TESTED

Three sets of coated panels, each containing three replicates were submitted for testing by Superior Products II, Inc. The coated sets were identified as:

Rust Grip 4.3, 6.3 and 9.3 mils

TEST PROCEDURE

The coated panels were exposed in a Salt Fog Chamber maintained in accordance with ASTM B 117, for 500 hours. The panels were evaluated periodically for blistering in accordance with ASTM D 714 and rusting in accordance with ASTM D 610.

TEST RESULTS

The test results can be found in the Appendix.

ASTM D 714, Degree of Blistering

Blister Size		Frequency of Occurrence		
10	- None	F	- Few	
8	- Pinpoint size	M	- Medium	
6	 1/16-inch diameter approx. 	MD	 Medium Dense 	
4	 1/8-inch diameter approx. 	D	- Dense	
2	 1/4-inch diameter approx. 			

ASTM D 610, Degree of Rusting

Rust Grade	<u>Description</u>
10	No rusting
9	Minute rusting, less than 0.03% of surface area
8	Few isolated areas, less than 0.1% of surface area
6	Extensive rust areas, less than 1% of surface area
4	Rusting to the extent of 10% of surface area
2	Approximately 33% of surface rusted
0	Approximately 100% of surface rusted



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CONCLUSIONS

The following conclusions can be derived from this evaluation.

- The Rust Grip coated panels at film thicknesses 4.3 and 6.3 did not exhibit any significant blistering or rusting in the overall areas. Rust Grip 9.3 exhibit minute blistering.
- All Rust Grip I coated panels did not exhibit any blistering at the scribe line which would eventually lead to film undercutting or delamination at the scribe. All the panels exhibited very slight rusting or rust staining at the scribe line.

DL Labs, Inc.

Mario Lazaro, Jr. Assistant Technical Director







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January 11, 2011

Superior Products International II, Inc. 10835 W. 78th Street Shawnee, KS 66214

Att: Mr. Craig R. Smith Technical Director

Re: DL-15881C

OBJECTIVE

To test a coating for compliance to the salt spray requirements as outlined in the Florida Department of Transportation specification.

PRODUCT TESTED

Coated panels were submitted by Superior Products II, Inc. and identified as:

Rust Grip NS 1, 6-mils through Rust Grip NS 3, 6-mils

TEST PROCEDURE

The coated panels were exposed in a Salt Fog Chamber maintained in accordance with ASTM B 117, for 15,000 hours. The panels were evaluated periodically for overall blistering in accordance with ASTM D 714 and rust staining in accordance with ASTM D 610.

TEST RESULTS

The test results can be found in the Appendix.

ASTM D 714, Degree of Blistering

		•	

10 - None

8 - Pinpoint size

6 - 1/16-inch diameter approx.

4 - 1/8-inch diameter approx.

2 - 1/4-inch diameter approx.

Frequency of Occurrence

F - Few

M - Medium MD - Medium Dense

D - Dense





Superior Products International II, Inc. Re: DL-15881C January 11, 2011



TEST RESULTS (cont.)

ASTM D 610, Degree of Rusting

Rust Grade	<u>Description</u>
10	No rusting
9	Minute rusting, less than 0.03% of surface area
8	Few isolated areas, less than 0.1% of surface area
6	Extensive rust areas, less than 1% of surface area
4	Rusting to the extent of 10% of surface area
2	Approximately 33% of surface rusted
0	Approximately 100% of surface rusted

DL Labs, Inc.

Mario Lazaro, Jr. Assistant Technical Director





Superior Products International II, Inc. Re: DL-15881C January 11, 2011



APPENDIX

TEST RESULTS

ASTM B 117 SALT SPRAY (FOG) CORROSION RESISTANCE

The three coated panels of Rust Grip NS, 6-mils exhibit the following:

	Blistering	Rust Staining
250 Hours Exposure	10	10
500 Hours Exposure	10	10
750 Hours Exposure	10	10
1,000 Hours Exposure	10	10
1,250 Hours Exposure	10	10
1,500 Hours Exposure	10	10
1,750 Hours Exposure	10	10
2,000 Hours Exposure	10	10
2,250 Hours Exposure	10	10
2,500 Hours Exposure	10	10
2,750 Hours Exposure	10	10
3,000 Hours Exposure	10	10
3,250 Hours Exposure	10	10
3,500 Hours Exposure	10	10
3,750 Hours Exposure	10	10
4,000 Hours Exposure	10	10
4,250 Hours Exposure	10	10
4,500 Hours Exposure	10	10
4,750 Hours Exposure	10	10
5,000 Hours Exposure	10	10
5,250 Hours Exposure	10	10
5,500 Hours Exposure	10	10
5,750 Hours Exposure	10	10
6,000 Hours Exposure	10	10
6,250 Hours Exposure	10	10
6,500 Hours Exposure	10	10
6,750 Hours Exposure	10	10
7,000 Hours Exposure	10	10
7,250 Hours Exposure	10	10
7,500 Hours Exposure	10	10
7,750 Hours Exposure	10	10
8,000 Hours Exposure	10	10





Superior Products International II, Inc. Re: DL-15881C January 11, 2011



APPENDIX (cont.)

TEST RESULTS

ASTM B 117 SALT SPRAY (FOG) CORROSION RESISTANCE

The three coated panels of Rust Grip NS, 6-mils exhibit the following:

	Blistering	Rust Staining
8,250 Hours Exposure	10	10
8,500 Hours Exposure	10	10
8,750 Hours Exposure	10	10
9,000 Hours Exposure	10	10
9,250 Hours Exposure	10	10
9,500 Hours Exposure	10	10
9,750 Hours Exposure	10	10
10,000 Hours Exposure	10	10
10,250 Hours Exposure	10	10
10,500 Hours Exposure	10	10
10,750 Hours Exposure	10	10
11,000 Hours Exposure	10	10
11,250 Hours Exposure	10	10
11,500 Hours Exposure	10	10
11,750 Hours Exposure	10	10
12,000 Hours Exposure	10	10
12,250 Hours Exposure	10	10
12,500 Hours Exposure	10	10
12,750 Hours Exposure	10	10
13,000 Hours Exposure	10	10
13,250 Hours Exposure	10	10
13,500 Hours Exposure	10	10
13,750 Hours Exposure	10	10
14,000 Hours Exposure	10	10
14,250 Hours Exposure	10	10
14,500 Hours Exposure	10	10
14,750 Hours Exposure	10	10
15,000 Hours Exposure	10	10