CORTEC Laboratories

LABORATORY ACCREDITATION BUREAU
ACCREDITED ISO/IEC 17025
Certificate # L2267 Testing

Evaluation of Static Intercept Film

To: Customer

From: Cortec Corporation Laboratories
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Project #: 14-217-1125.bis

Results reported by: *Liz Austin*

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Eric Uutala   Margarita Kharshan
Technical Service Manager   Vice President of R&D

Background: It was requested that the corrosion inhibiting and anti-static properties of the submitted Static Intercept film be tested.

Samples Received: Dark brown Static Intercept anti-stat film, manufactured by Engineered Materials, Inc. Good condition, labeled Intercept Technology

Method:

1) VIA Test, CC-027
2) Razor Blade Test, CC-004*
3) Anti-Stat Test, tested at Cambridge Advanced Film Division*
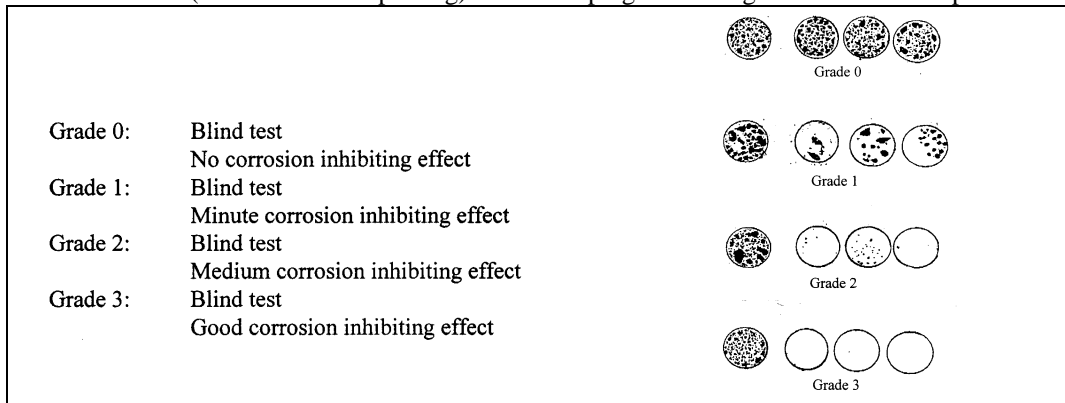*Cortec Laboratory is not accredited for the tests marked

Materials:

1) Plain polyethylene film (4mil)
2) VIA test kit
3) Razor blade test kit
4) Methanol, technical grade

Procedure: The tests were conducted according to standard procedures for each test.

1. VIA tests were graded according to the following grading scale.

VIA Test Grades (Grade 2 or 3 are passing). All three plugs must be grade 2 or better to pass the test

Grade 0: Blind test
No corrosion inhibiting effect
Grade 1: Blind test
Minute corrosion inhibiting effect
Grade 2: Blind test
Medium corrosion inhibiting effect
Grade 3: Blind test
Good corrosion inhibiting effect

Results:

Razor Blade Test - Carbon Steel Panels

Film Sample	Panel #1	Panel #2	Panel #3	Pass / Fail
Static Intercept Film	Fail	Fail	Fail	Fail
Control	Fail			Fail

Razor Blade Test - Copper Panels

Film Sample	Panel #1	Panel #2	Panel #3	Pass / Fail
Static Intercept Film	Fail	Fail	Fail	Fail
Control	Fail			Fail

VIA Test

Film Sample	Plug #1	Plug #2	Plug #3	Pass / Fail
Static Intercept	Grade 0	Grade 0	Grade 0	Fail
Control	Grade 0			Fail

Surface Resistivity
OHM/SQ

Limit 1.0×10^5 to 1.0×10^{12}		
	Outside Surface	Inside Surface
SAMPLE-1	1.5×10^8	1.2×10^8
SAMPLE-2	1.6×10^8	1.2×10^8
SAMPLE-3	1.4×10^8	1.1×10^8
SAMPLE-4	1.8×10^8	7.1×10^7
SAMPLE-5	2.1×10^8	1.1×10^7
SAMPLE-6	1.9×10^8	6.8×10^8

Static Decay Rate (in seconds)

Limit: 2 second decay rate at 10% threshold				
	Outside Surface		Inside Surface	
	+ 5000 Volts	- 5000 Volts	+ 5000 Volts	- 5000 Volts
Sample 1	.01	.01	.01	.00
Sample 2	.00	.01	.01	.01
Sample 3	.01	.01	.00	.01
Sample 4	.00	.00	.01	.01
Sample 5	.01	.01	.01	.01
Sample 6	.01	.01	.01	.01

Interpretations:
1. The VIA and Razor Blade corrosion test results determined that the Static Intercept film did not provide vapor phase or contact phase corrosion protection.
2. The Static Intercept film performed well in Anti-Stat and Static Decay Rate testing. All results were within required limits.

Intercept films in different versions were tested many times during the last few years with similar results. The corresponding reports can be provided per request.