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

Evaluation of Yellow VCI Film

From: Cortec Corporation Laboratories
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Project #:11-120-1125(bis)

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Date: June 17, 201

Background: Yellow VCI film was submitted for testing. The producer is Custom Poly Products.

Sample Received: Yellow VCI Film, received 06/08/11, good condition

Sample(s) labeled: 11-120-1125A

Method:

1) VIA Test CC-027
2) Razor Blade Test CC-004
3) FTIR Test CC-006
4) Tensile Test, ASTM D882
5) Tear Propagation, ASTM D1922

Materials:

1) VpCI-126, sample GW0362516
2) VIA test kit
3) Razor Blade test kit
4) Oakland Tensile Tower
5) Thwing-Albert Tear Tester
6) Perkin Elmer Paragon 1000 Spectrophotometer

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

Results:

Razor Blade Test-Carbon Steel Panels

Sample	Panel 1	Panel 2	Panel 3
Yellow VCI Film	Pass	Pass	Pass
VpCI-126	Pass	Pass	Pass
Control	Fail	-	-

Razor Blade Test -Copper Panels

Sample	Panel 1	Panel 2	Panel 3
Yellow VCI Film	Fail	Fail	Fail
VpCI-126	Pass	Pass	Pass
Control	Fail	-	-

VIA Test

Sample	Plug #1	Plug #2	Plug #3
Yellow VCI Film	Grade 1	Grade 2	Grade 2
VpCI-126	Grade 3	Grade 2	Grade 3
Control	Grade 0	-	-

Note: The VIA grading system is attached to the end of the report.

Mechanical Properties

Property		Test Method	Units	Yellow VCI Film	VpCI-126
Thickness	-	-	-	2.10	2.00
Breaking Factor	MD	ASTM D882-02	lbs/in	7.77	8.07
	TD			6.97	8.03
Tensile Strength at Break	MD	ASTM D882-02	psi	3775.57	4586.96
	TD			3635.33	4171.95
Elongation at Break	MD	ASTM D882-02	%	465.05	592.03
	TD			752.45	671.18
Yield Strength	MD	ASTM D882-02	psi	1700.95	1545.34
	CD			1436.23	1517.03
Tear Strength	MD	ASTM D1922-06a	mN	1553.90	2644.78
	CD			7157.38	7267.25

*Typical properties represent average laboratory values and are not intended as specifications but as guides only.

Interpretations:

1) Based on the VIA test results, the submitted Yellow VCI Film does not provide sufficient vapor-phase corrosion inhibition.
2) The results of the razor blade testing determined that the Yellow VCI film doesn't provide multi-metal protection.
3) VpCI-126 provided sufficient vapor and contact-phase corrosion inhibition.
4) The results of the Mechanical Properties testing determined that the submitted yellow VCI film and VpCI-126 are comparable. VpCI-126 film has a slightly greater tensile strength.

VIA Grading Chart: Grade 2 and higher are considered passing