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Evaluation of Armor Poly VCI and Laddawn Films

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Background: Customer requested that the submitted Armor bag and a Green film, which was distributed by Laddawn be tested to determine if they provide sufficient corrosion protection.

Sample Received:

1. Green Film, 3 mil, distributed by Laddawn, received 06-29-12, good condition
2. Armor Poly VCI , 2 mil, received 06-29-12, used condition

Method:

- 1) VIA Test CC-027
 - 2) Razor Blade Test CC-004*
 - 3) FTIR Test CC-006
 - 4) Nitrite Test*
- *Cortec Laboratory is not accredited for the test marked

Materials:

- 1) VIA test kit
- 2) Razor Blade test kit
- 3) Paragon 1000 FTIR
- 4) Nitrite/Nitrate Test Strips

Procedure:

- 1) The above tests were performed according to standard procedures.
- 2) The tests were performed from 7/17/12-7/24/12.

Results:

Razor Blade Carbon Steel

Sample	Panel 1	Panel 2	Panel 3
Armor Poly VCI Film	Pass	Pass	Pass
Green Laddawn Film	Fail	Fail	Fail
Control	Fail	-	-

Razor Blade Copper

Sample	Panel 1	Panel 2	Panel 3
Armor Poly VCI Film	Pass	Pass	Pass
Green Laddawn Film	Pass	Pass	Pass
Control	Fail	-	-

VIA Test Results

Sample	Plug #1	Plug #2	Plug #3	Pass/Fail
Armor Poly VCI Film	Grade 1	Grade 1	Grade 2	Fail
Green Laddawn Film	Grade 1	Grade 2	Grade 2	Fail
Control	Grade 0	-	-	

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

Results relate only to the items tested

Interpretations:

- 1) Based on the corrosion testing results, the Armor Poly VCI film provided good contact-phase corrosion protection for carbon steel and copper. The VIA test results determined that it did not provide sufficient vapor-phase corrosion inhibition. The results determined that the film contained nitrite.
- 2) The results determined that the Green Laddawn film failed to provide contact-phase corrosion protection for carbon steel, but did protect copper. In addition, the VIA test results determined that the Green Laddawn film did not provide vapor-phase corrosion protection. The nitrite test determined that the film did not contain nitrite.

VIA Test Grades (Grade 2 or 3 are passing)

- 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





