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Evaluation of Daubert Film

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Project #: 14-023-1125.bis

Results reported by:

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Approved by:

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Background: It was requested that the submitted Daubert bag be tested for corrosion inhibition.

Sample Received:

- 1) Daubert bag, good condition, received 02-25-14, 4 mils

Method:

- 1) VIA Test Method, CC-027
- 2) Razor Blade Test Method, CC-004*
- 3) Paragon 1000 FTIR, Method 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) Methanol, lab grade
- 4) Nitrite Test Strips, from VWR, part number EMD-10020-1
- 5) Deionized Water
- 6) Paragon 1000 FTIR
- 7) Plain polyethylene, control film
- 8) VpCI-126 lot# 33659

Procedure:

- 1) The tests were performed according to standard procedure. The Daubert film was tested as a monolayer film, with 1"x6" strips. The VpCI-126 was tested as part of the random QA testing.
- 2) The VIA test was graded according to the following system:

VIA Test Plug Grading Scheme	
Picture A.2	
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

Sample	Panel 1	Panel 2	Panel 3
Daubert Bag	Pass	Pass	Pass
VpCI-126	Pass	Pass	Pass
Control	Fail	-	-

Razor Blade Test – Copper

Sample	Panel 1	Panel 2	Panel 3
Daubert Bag	Fail	Fail	Fail
VpCI-126	Pass	Pass	Pass
Control	Fail	-	-

VIA Test

Sample	Plug # 1	Plug # 2	Plug # 3	Pass / Fail
Daubert Bag	Grade 0	Grade 0	Grade 0	Fail
VpCI-126	Grade 3	Grade 3	Grade 3	Pass
Control	Grade 0	Grade 0	N/A	N/A

Note: Grades 0 and 1 are considered failing. See below for grading scale example.

Results relate only to the items tested

Interpretations:

1. Based on the razor blade test results, the submitted Daubert bag provides good contact-phase corrosion protection for carbon steel, but does not protect copper.
2. The VIA test results determined that the Daubert film did not provide vapor-phase corrosion protection.
3. The FTIR results determined that the film contains sodium salt of carboxylic acid. The Daubert film also contains nitrite.

