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Evaluation of Transshield Films

To: Boris Miksic

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cc: Anna Vignetti
Cliff Cracauer
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Project #: 12-059-1125

Test conducted by:

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Approved by:

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Laboratory Director

Date: March 29, 2012



Background: Boris Miksic requested that the green and tan samples of Transhield film be tested to determine if they provide corrosion protection.

Sample Received:

1. Green Transhield film, good condition, received 03-21-12
2. Tan Transhield film, good condition, received 03-21-12

Sample(s) labeled: 12-059-1125-tan and 12-059-1125-green

Method:

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

Materials:

- 1) VIA test kit
- 2) Razor Blade test kit
- 3) Nitrite/Nitrate Test Strips

Procedure:

- 1) The tests were performed according to the standard tests for each. Since there was not much film, the VIA and razorblade tests were not performed in triplicate.

Results:

Razor Blade Carbon Steel

Sample	Panel 1
Green Film	Pass
Tan Film	Fail
Control	Fail

Razor Blade Copper

Sample	Panel 1
Green Film	Pass
Tan Film	Fail
Control	Fail

VIA Test Results

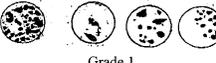
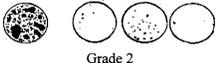
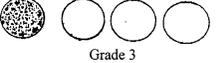
Sample	Plug #1
Green Film	Grade 0
Tan Film	Grade 0
Control	Grade 0

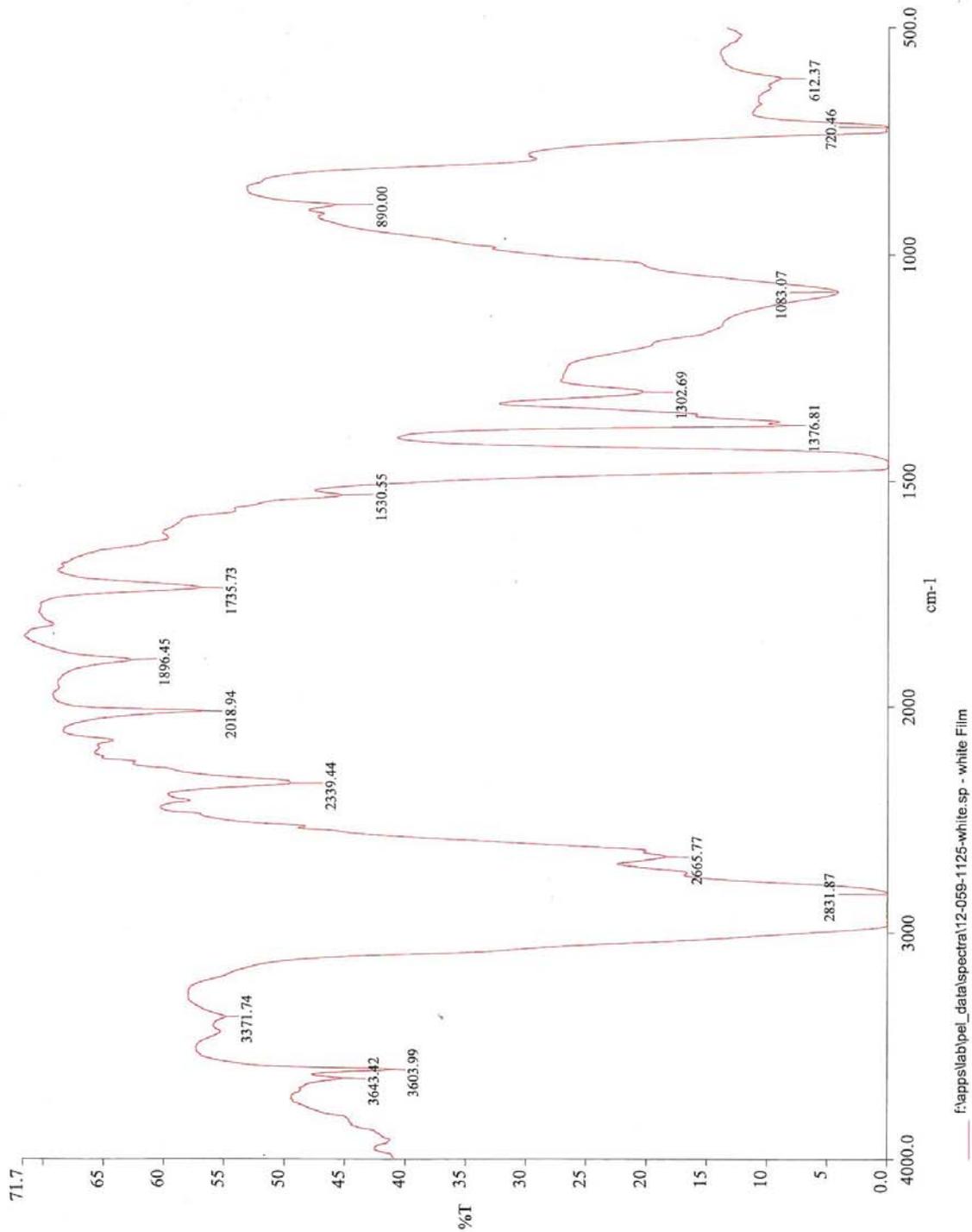
Note: The VIA grading system is attached to the end of the report

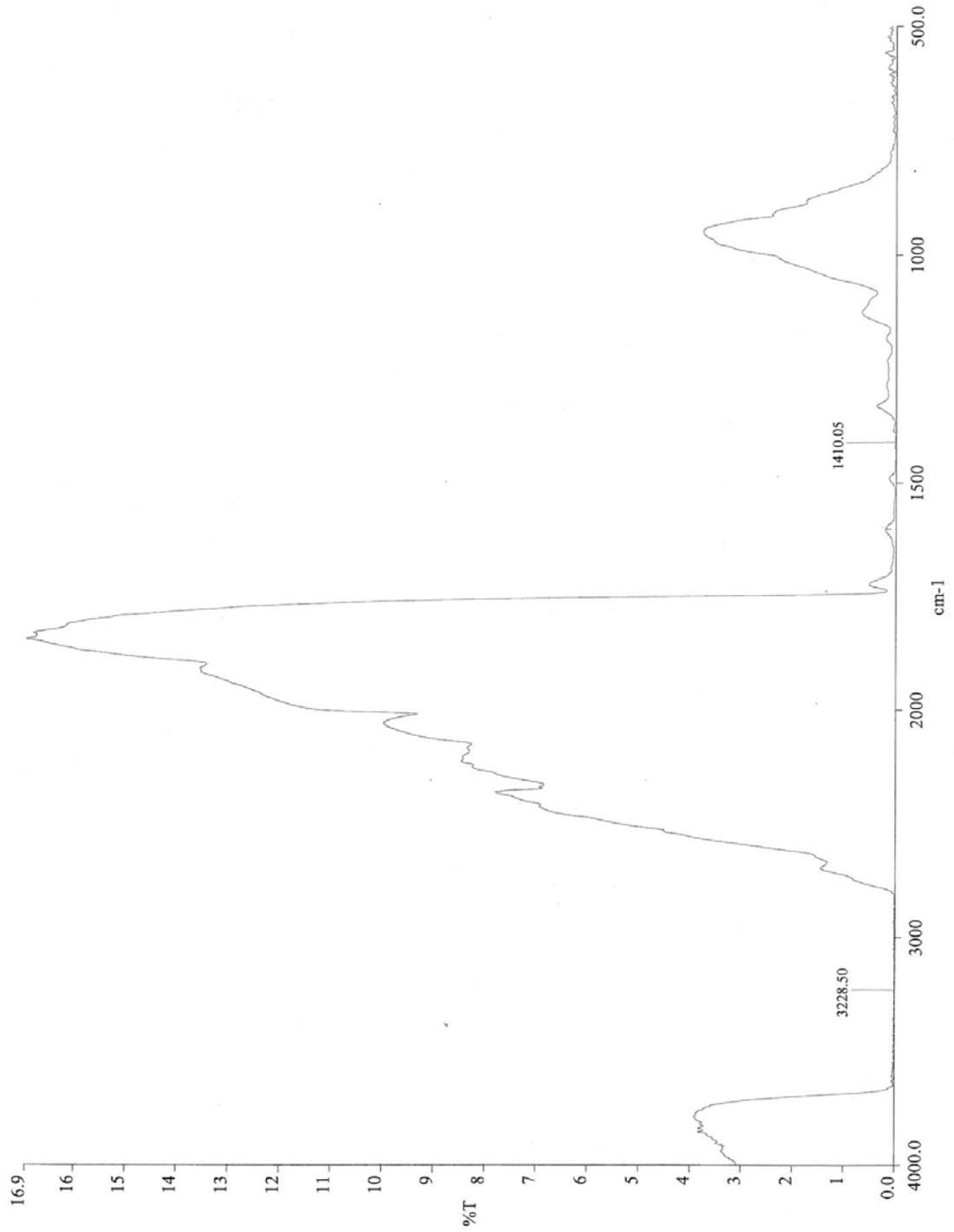
Interpretations:

- 1) Based on the test results, the green film provides sufficient contact-phase corrosion protection for carbon steel and copper. The VIA test results determined that the green Transshield film does not provide vapor-phase corrosion inhibition. The nitrite test determined that the green Transshield film is nitrite-based.
- 2) The test results determined that the tan Transshield film did not provide vapor or contact-phase corrosion inhibition. The tan film did not contain nitrite.
- 3) Based on FTIR results, both films contain limited amounts of corrosion inhibitors.

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	





f:\apps\lab\pel_data\spectra\12-059-1125-green.sp - Green Film