



4119 White Bear Parkway, St. Paul, MN 55110 USA
Phone: (651) 429-1100, Fax: (651) 429-1122
Toll Free: (800) 4-CORTEC, E-mail: info@cortecvci.com
cortecvci.com • corteclaboratories.com

Blue Film Evaluation

To: Mike Gonzales

From: Cortec Corporation Laboratories
4119 White Bear Parkway
St. Paul, MN 55110

cc: Boris Miksic
Cliff Cracauer

Project #: 13-026-1125.bis

Results reported by: *Brian Benduha*
Brian Benduha
Lab Technician

Approved by: *M. Kharshan*
Margarita Kharshan
Laboratory Director

Date: February 22, 2013



Purpose: To determine the level of protection the submitted Laddawn blue film offers, and compare to VpCI-126 film.

Sample Received: Laddawn blue film bag, 3.5mils

Method: 1) VIA Test CC-027
2) Razor Blade Test CC-004*
3) FTIR analysis
*Cortec Laboratory is not accredited for the test marked

Materials: 1) VIA test kit
2) Razor blade test kit
3) Mil thickness gauge
4) Paragon 1000 FTIR
5) VpCI-126 film 3.5mils

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	End Result
Submitted Blue film 3.5mils	Fail	Fail	Fail	Fail
VpCI-126 film, 3.5 mils	Pass	Pass	Pass	Pass
Control	Fail	-	-	-

Razor Blade Test- Copper Panels

Sample	Panel #1	Panel #2	Panel #3	End Result
Submitted Blue film 3.5mils	Fail	Fail	Fail	Fail
VpCI-126 film, 3.5 mils	Pass	Pass	Pass	Pass
Control	Fail	-	-	-

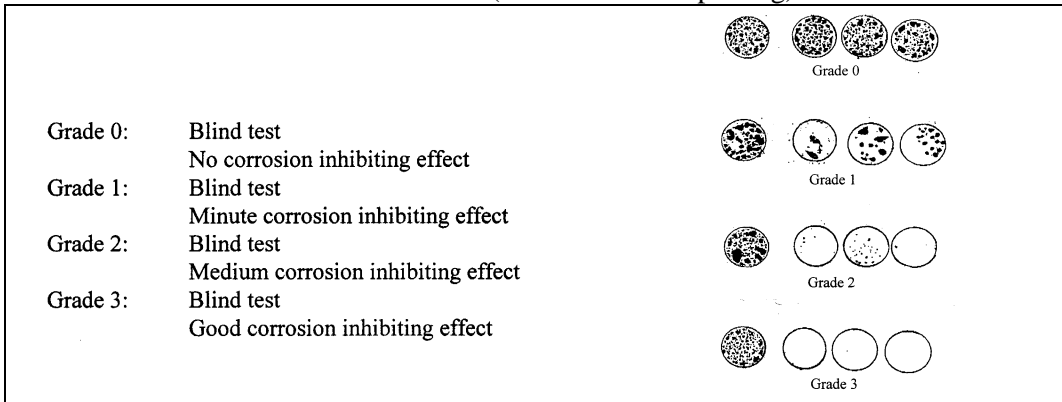
VIA Test

Sample	Plug #1	Plug #2	Plug #3	End Result
Submitted Blue film 3.5mils	Grade 3	Grade 2	Grade 2	Pass
VpCI-126 film, 3.5 mils	Grade 3	Grade 2	Grade 3	Pass
Control	Grade 0	-	-	-

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

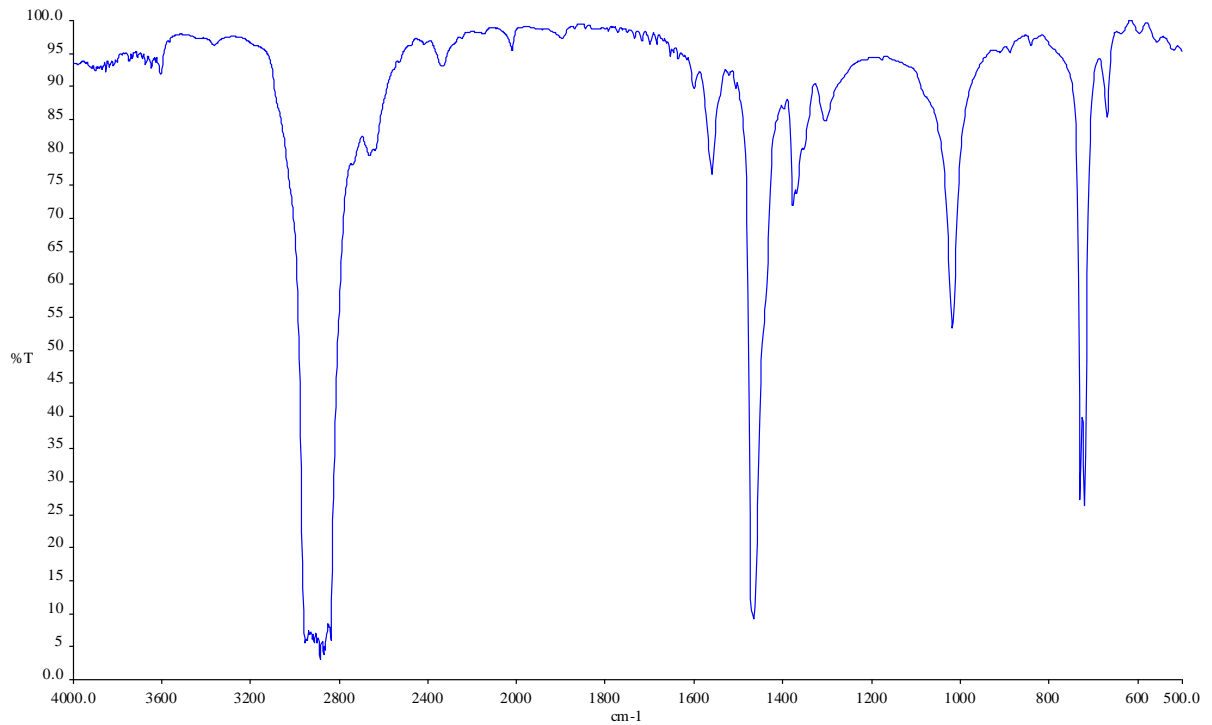
Interpretations: Submitted blue film is not passing the tests for contact corrosion protection. Based on attached FTIR graphs, blue film contains insufficient amount of salt of carboxylic acid and desiccant. Acidic nature of desiccant prevents corrosion protection when the film is in contact with the metal, especially in the presence of condensation.

VIA Test Grades (Grade 2 or 3 are passing)



FTIR Analysis

Submitted Blue film, 3.5mils



VpCI-126 film, 3.5 mils

