



- 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@cortecvc.com
- cortecvc.com • corcelaboratories.com

Daubert Film Evaluation

To: Jessica Glanz

For: Customer

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

cc: Boris Miksic
Cliff Cracauer
Robert Kean
Jay Zhang
Mike Gabor

Project #: 18-142-1125.bis

Results reported by:

Brian Benduha
Lab Technician

Approved by:

John Wulterkens
Technical Service Engineer



Background: Two samples of Daubert film were submitted for testing. The customer that is using these films is making transmission parts for the automotive industry. However, they are getting rust on the edge of their parts. The films were purchased from Apac, and were submitted to determine if they provide any corrosion protection.

Samples Received: The following samples were received on 7-6-18 in good condition:
 1. Green Daubert film, 2mil
 2. Blue Daubert film, 4mil

Method: VIA Test, CC-027
 Razor Blade Test, CC-004*
 Nitrite/Nitrate Test*
 *The tests marked are not covered under Cortec Laboratories, Inc. ISO 17025 Scope of Accreditation

Materials: VIA test kit (testing jars and lids, steel plugs, 320grit sandpaper)
 Copper and Carbon Steel panels, SAE 1010 (for razor blade testing)
 Glycerol (lot #Q10A018)
 Methanol, ACS grade (lot #071417B)
 Nitrite/Nitrate Test Strips (lot #HC719626)
 Plain polyethylene film (control film)
 40°C oven (oven #5)

Procedure: The testing was conducted according to standard procedures for each test.
 Note- the VIA test was conducted using two strips of sample per jar (1" X 6" per strip)

Results: The following results were found:

Razor Blade Test- Carbon Steel Panels

Sample	Panel #1	Panel #2	Panel #3	End Result
Green Daubert Film	Fail	Fail	Fail	Fail
Blue Daubert Film	Fail	Fail	Fail	Fail
Control	Fail	-	-	Fail

Razor Blade Test- Copper Panels

Sample	Panel #1	Panel #2	Panel #3	End Result
Green Daubert Film	Fail	Fail	Fail	Fail
Blue Daubert Film	Fail	Fail	Fail	Fail
Control	Fail	-	-	Fail

VIA Test

Sample	Plug #1	Plug #2	Plug #3	End Result
Green Daubert Film	Grade 1	Grade 1	Grade 0	Fail
Blue Daubert Film	Grade 1	Grade 1	Grade 0	Fail
Control	Grade 0	-	-	Fail

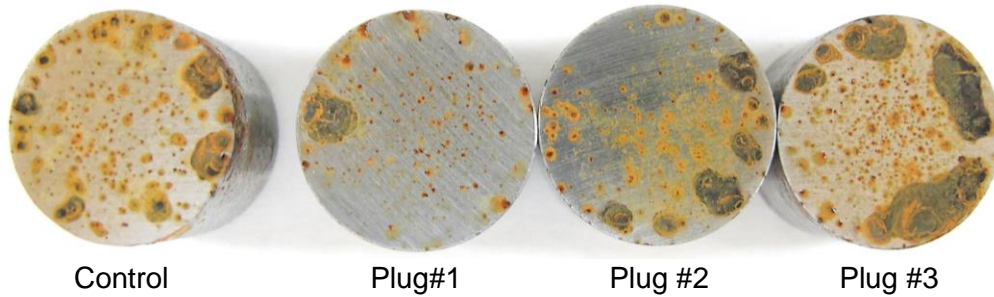
Results: The following results were found:

Nitrite/Nitrate Test Strips

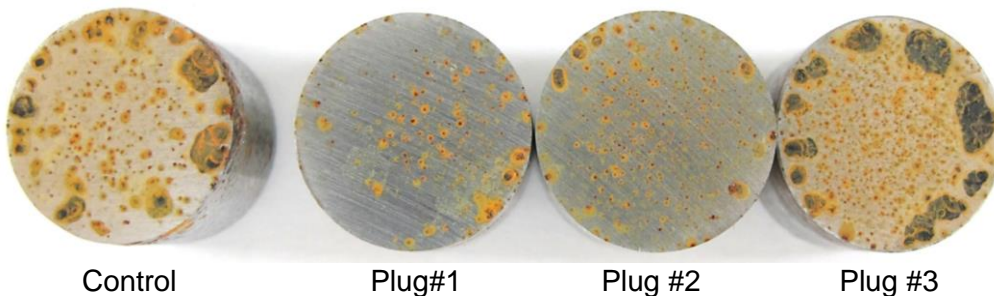
Sample	Results
Green Daubert Film	Does not contain any nitrite or nitrate
Blue Daubert Film	Does not contain any nitrite or nitrate

Photo from the VIA test:


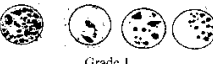
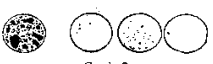
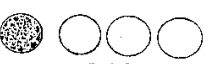
Green Daubert Film



Blue Daubert Film



VIA Test Grades (Grade 2 and 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	

Interpretations: The two submitted Daubert film samples do not provide sufficient corrosion protection to pass the VIA or razor blade testing.