



● 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@corotecvci.com
● corotecvci.com • corteclaboratories.com

Evaluation of Orvic Film

To: Customer

From: Humberto Paiva
WEG S.A.
Avenida Prefeito Waldemar Grubba, 3300
Jarajua do Sul, Santa Catarina 89256-900
Brazil

cc: Boris Miksic
Cliff Cracauer
Robert Kean
Jay Zhang

Project #: 17-225-1125.bis

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

Approved by: *John Wulterkens*
John Wulterkens
Technical Service Engineer



Background: Customer operates worldwide in the electrical engineering, power, and automation technology industries. They produce a variety of equipment including electrical motors, turbines, and transformers. The customer is currently using a VCI film manufactured by Orvic to protect their rotors and coils for electric motors. Corr Solutions Brazil is looking to supply VpCI-126 film to the customer for protection of their assets and is looking to compare the current Orvic film with VpCI-126 film.

Sample Received: Blue Orvic film, 6mils, received on 11-3-17 in good condition.

Method: VIA Test, CC-027
 Razor Blade Test, CC-004*
 *The test(s) marked are not covered under Cortec Laboratories, Inc. ISO 17025 Scope of Accreditation

Materials: VIA test kit
 Razor blade test kit
 Glycerol (lot #Q10A018)
 VpCI-126 film, 3mils (batch #510220)
 Methanol, ACS grade (lot #032916C)
 Oven set for 40°C (oven #10)
 Plain polyethylene film (control film)

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

Results:

Razor Blade Test- Carbon Steel Panels

Sample	Panel #1	Panel #2	Panel #3	End Result
ORVIC film	Pass	Pass	Fail	Pass
VpCI-126 film	Pass	Pass	Fail	Pass
Control	Fail	-	-	Fail

Razor Blade Test- Copper Panels

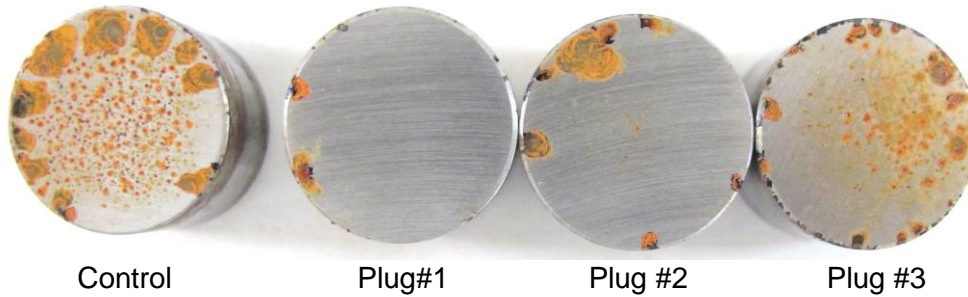
Sample	Panel #1	Panel #2	Panel #3	End Result
ORVIC film	Fail	Fail	Pass	Fail
VpCI-126 film	Pass	Pass	Fail	Pass
Control	Fail	-	-	Fail

VIA Test

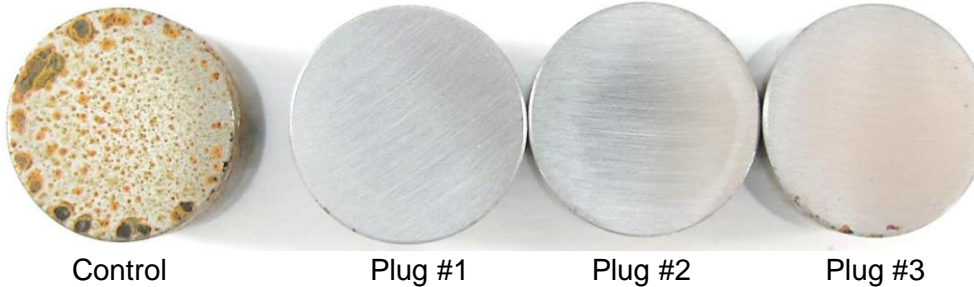
Sample	Plug #1	Plug #2	Plug #3	End Result
ORVIC film	Grade 1	Grade 1	Grade 1	Fail
VpCI-126 film	Grade 3	Grade 3	Grade 2	Pass
Control	Grade 0	-	-	Fail

Photos from VIA Testing:

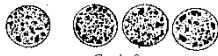

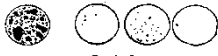

Orvic film



VpCI-126 Film



VIA Test Grades (Grade 2 or 3 are passing)
All three plugs must be grade 2 or better to pass the test

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 submitted Orvic film does not provide sufficient vapor phase corrosion protection to pass the VIA test. For contact corrosion protection, the Orvic film passes the razor blade test for steel, but not for copper. In comparison, VpCI-126 film regularly passes the VIA test and razor blade test for both steel and copper.