



• 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

Evaluation of Taranto Protyl VCI Paper

To: Customer

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

cc: Boris Miksic
Dario Dell'Orto

Project #: 13-114-1125.bis

Results reported by:

Liz Austin
Senior Lab Technician

Approved by:

Margarita Kharshan
Laboratory Director

Date: June 20, 2013



Background: It was requested that the submitted sample of Taranto Protyl VCI paper be tested to determine if it is a good corrosion inhibitor. The results for the Taranto Protyl VCI paper were then compared to VpCI-146 paper.

Sample Received:

- 1) Taranto Paper Protyl VCI paper, good condition, received 05/30/13

Method:

- 1) VIA Test (CC-027)
 - 2) Razor Blade Test (CC-004), modified*
- *Cortec Laboratory is not accredited for the test marked

Materials:

1. VIA Test Kit
2. Laboratory Grade Methanol
3. Carbon Steel Panels
4. Copper Panels
5. Control Paper, Plain
6. Deionized Water
7. VpCI-146, 35#, Batch 208854, tested 04-30-13 by QC

Procedure: The tests were performed according to standard test procedures.

Results:

Razor Blade Test – Carbon Steel

Sample	Panel 1	Panel 2	Panel 3
Taranto Protyl VCI Paper	Fail	Fail	Fail
VpCI-146	Pass	Pass	Pass
Control	Fail	-	-

Razor Blade Test – Copper

Sample	Panel 1	Panel 2	Panel 3
Taranto Protyl VCI Paper	Fail	Fail	Fail
VpCI-146	Pass	Pass	Pass
Control	Fail	-	-

VIA Test

Sample	Plug # 1	Plug # 2	Plug # 3	Pass / Fail
Taranto Protyl VCI Paper	Grade 3	Grade 2	Grade 2	Pass
VpCI-146	Grade 3	Grade 3	Grade 3	Pass
Control	Grade 0	N/A	N/A	Fail

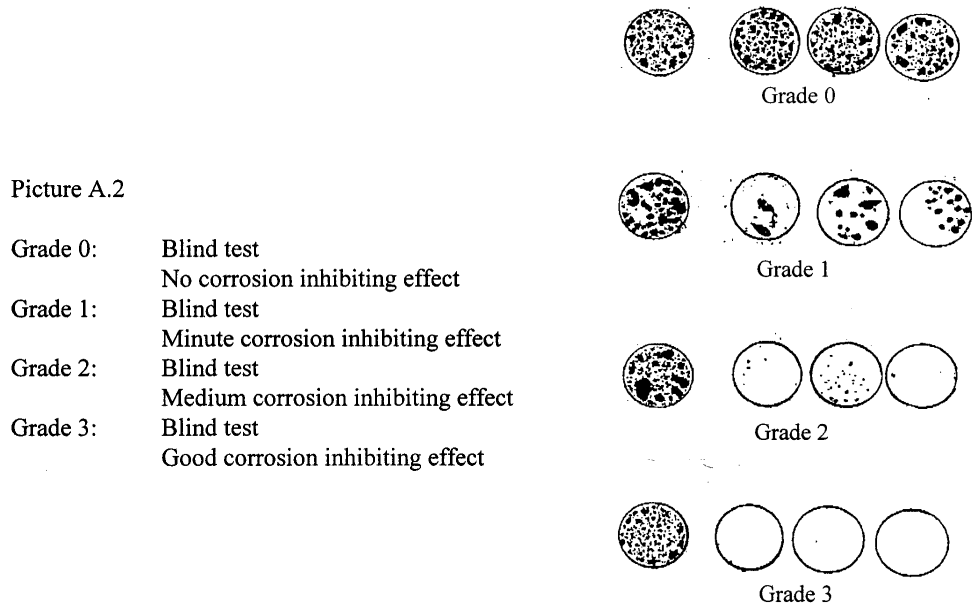


Figure 1. VIA Test Plug Grading Scheme. Grades 0 and 1 are considered failing.

Results relate only to the items tested

Interpretations:

- 1) Based on the razor blade test results, the Taranto Protyl VCI paper does not provide contact-phase corrosion protection for carbon steel and copper.
- 2) The VIA results for the Taranto Protyl VCI paper determined it provides sufficient vapor-phase corrosion inhibition.
- 3) The failure in the razor blade test can be explained with low pH(close to 5) of the paper used. The failure in razor blade can create problems in the field when paper is in contact with metal.
- 4) The corrosion test results for VpCI-146 determined that it provided good contact-phase corrosion protection for carbon steel and copper, as well as good vapor-phase corrosion inhibition.