



• 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 Blue Film*

**To:** John Wiermaa

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

**cc:** Boris Miksic

**Project #:** 13-085-1125.bis

**Results reported by:**

Liz Austin  
Senior Lab Technician

**Approved by:**

Margarita Kharshan  
Laboratory Director

**Date:** May 8, 2013



**Background:** A blue film manufactured by Pioneer Plastics was submitted and it was requested it be determined if the film provides corrosion protection, and that it be compared to VpCI-126.

**Sample Received:**

- 1) Blue film, manufactured by Pioneer Plastics, no label, good condition, received 04/23/13

**Method:**

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

**Materials:**

- 1. VIA Test Kit
- 2. Laboratory Grade Methanol
- 3. Carbon Steel Panels
- 4. Control Film, Plain Polyethylene Film
- 5. Deionized Water
- 6. Paragon 1000 FTIR
- 7. Nitrate/Nitrite Test Strips, EM Quant
- 8. VpCI-126 Batch#33659

**Procedure:** The tests were performed according to their standard procedures.

**Results:**

**Razor Blade Test – Carbon Steel**

Sample	Panel 1	Panel 2	Panel 3
Blue Pioneer Plastics Film	Fail	Fail	Fail
VpCI-126 Batch#33659	Pass	Pass	Pass
Control	Fail	-	-

**Razor Blade Test – Copper**

Sample	Panel 1	Panel 2	Panel 3
Blue Pioneer Plastics Film	Fail	Fail	Fail
VpCI-126 Batch#33659	Pass	Pass	Pass
Control	Fail	-	-

### VIA Test

Sample	Plug # 1	Plug # 2	Plug # 3	Pass / Fail
Blue Pioneer Plastics Film	Grade 0	Grade 0	Grade 0	Fail
VpCI-126 Batch#33659	Grade 3	Grade 3	Grade 2	Pass
Control	Grade 0	N/A	N/A	Fail

Note: Grades 0 and 1 are considered failing. See below for grading scale example.

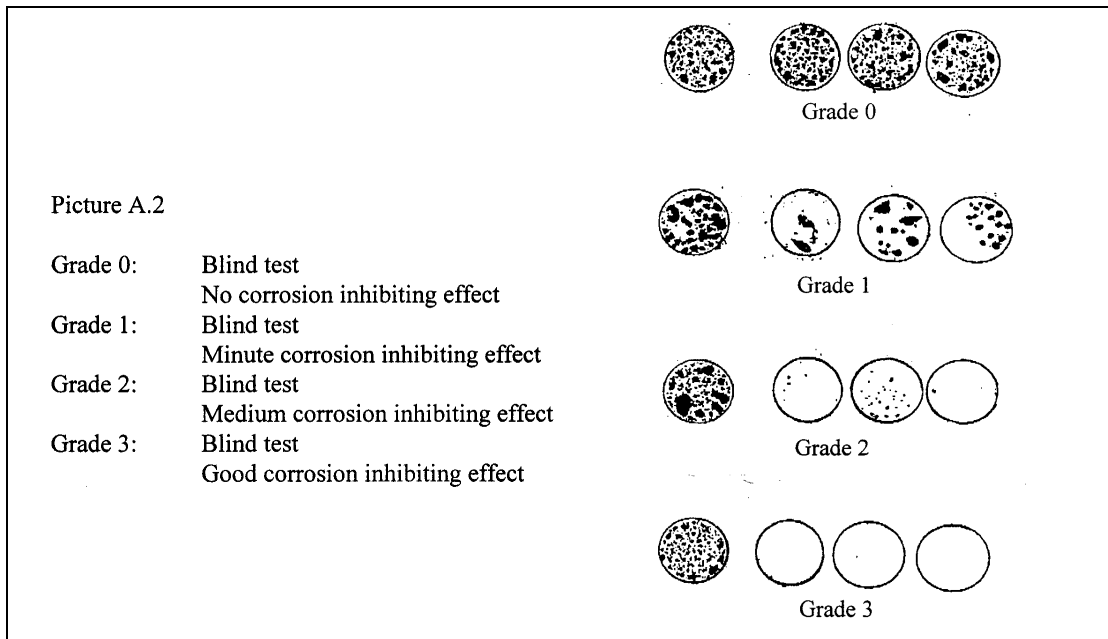


Figure 1. VIA Plug Grading Scheme

**Results relate only to the items tested**

**Photos:**



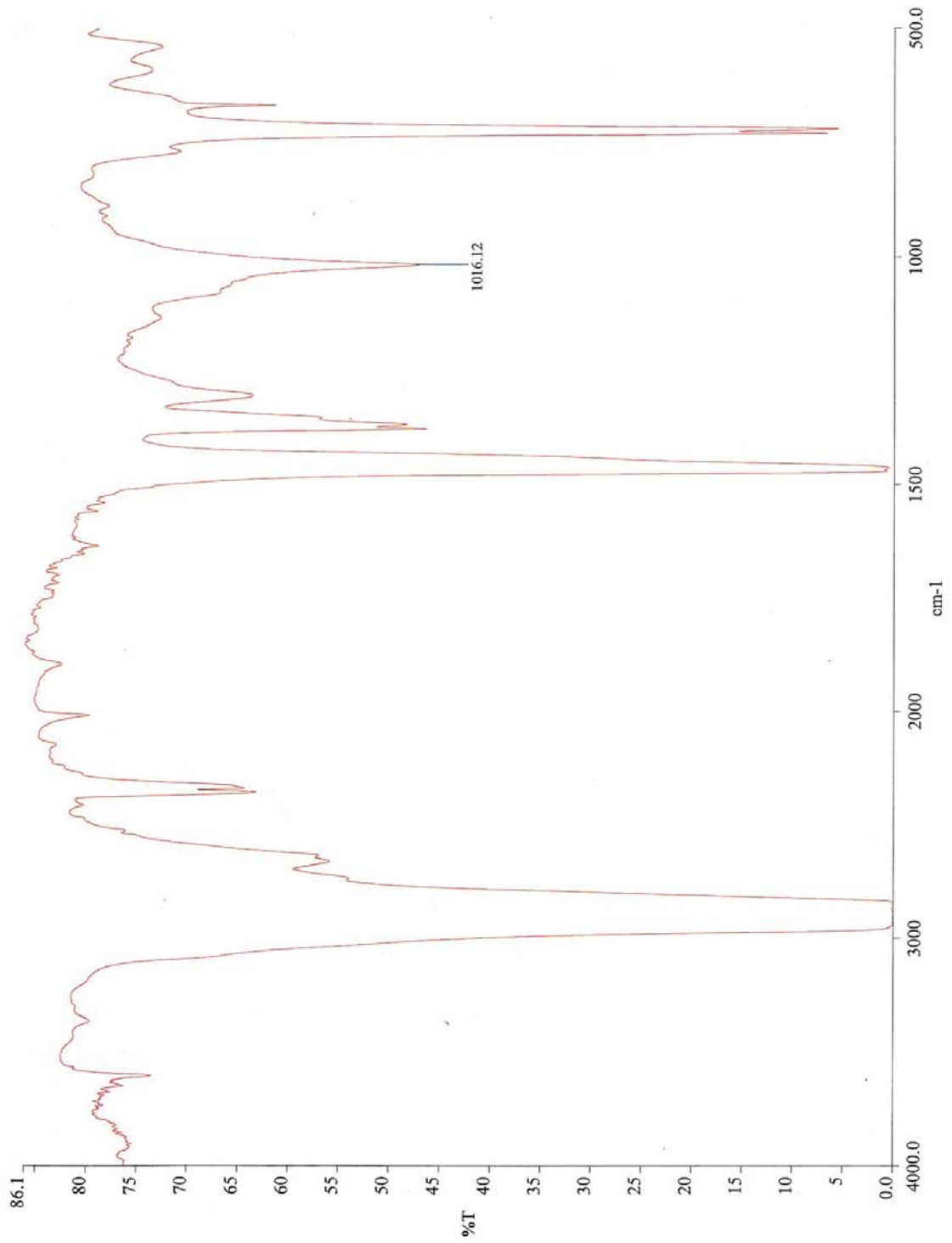
Figure 2. VIA test results for VpCI-126 Batch#33659



Figure 3. VIA test results for submitted Blue Pioneer Plastics film

**Interpretations:**

- 1) Based on the VIA (figure 3) and Razor Blade test results, the submitted blue film manufactured by Pioneer Plastics doesn't provide vapor-phase or contact-phase corrosion inhibition. The FTIR results do not show the presence of any corrosion inhibitors.
- 2) The Razor Blade and VIA test results for VpCI-126, batch #33659 demonstrate that it provides good contact and vapor-phase corrosion protection.



f:\apps\lab\pel\_data\spectra\13-085-1125.sp - Blue film Pioneer Plastics