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# Evaluation of Rust X Film Compared To VpCI-126 Film

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**Project** #: 15-201-1125

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**Background:** A sample of Rust X film has been submitted for corrosion testing. It

will be evaluated via Cortec VCI packaging testing, and compared to

VpCI-126 film.

**Sample Received:** Blue Rust X film (6 mil thickness) received on 9/23/15 in good condition.

**Method:** VIA Test, CC-027

Razor Blade Test, CC-004\*

Nitrite/Nitrate Test\*

\*Cortec Laboratories, Inc is not ISO/IEC 17025 accredited for the test(s) marked.

**Materials:** VIA test kit

Razor blade test kit

Nitrite/Nitrate Test Strips (lot #HC435784)

VpCI-126 film, 4mil (batch #36225)

Glycerol (lot #Q10A018)

Methanol, ACS grade (lot #041715D)

Oven set for 40°C (oven #1)

Plain polyethylene film, 2mils (control film)

**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
Rust X film	Fail	Fail	Fail	Fail
VpCI-126 film	Pass	Pass	Pass	Pass
Control	Fail	-	-	Fail

**Razor Blade Test- Copper Panels** 

**					
Sample	Panel #1	Panel #2	Panel #3	End Result	
Rust X film	Fail	Fail	Fail	Fail	
VpCI-126 film	Pass	Pass	Pass	Pass	
Control	Fail	-	-	Fail	

#### **VIA Test**

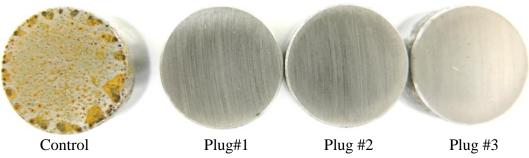
Sample	Plug #1	Plug #2	Plug #3	End Result
Rust X film	Grade 0	Grade 0	Grade 0	Fail
VpCI-126 film	Grade 3	Grade 2	Grade 2	Pass
Control	Grade 0	-	-	Fail

### **Nitrite/Nitrate Test Strip Results**

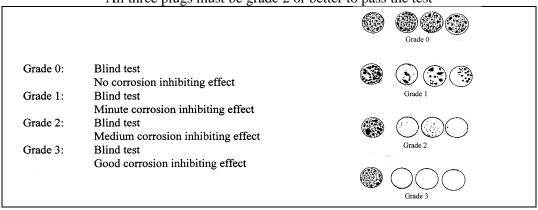
The Rust X film does not contain any nitrite or nitrate

## **Photos from VIA Testing:**





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



## **Interpretations:**

Rust X film does not provide contact or vapor phase corrosion testing, per our standard analysis for VCI packaging products. In comparison, Cortec's VpCI-126 film provides excellent contact and vapor phase corrosion protection, in a thinner film gauge.