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## *Evaluating the Quality of Two Zerust Films*

**To:** Dario Dell'Orto  
**For:** Customer  
**From:** Cortec Laboratories, Inc.  
4119 White Bear Parkway  
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**cc:** Boris Miksic  
Cliff Cracauer  
Robert Kean

**Project #:** 15-237-1125.bis

**Results reported by:**

Anne Carlson  
Lab Technician

**Approved by:**

Eric Uutala  
Technical Service Manager



**Background:** Customer would like to verify the corrosion inhibition properties of two Zerust films.

**Sample Received:** One yellow film, one white opaque film, dirty but otherwise good condition. Not packed airtight.

**Method:** Nitrite Test\*  
Razor Blade Test, CC-004\*  
VIA Test, CC-027

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

**Materials:** Nitrite test strips  
Razor Blade test kit  
VIA test kit  
Polyethylene film

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

**Results:**

**Nitrite Test**

Sample	Result
Yellow Film	Trace amounts found on labeled side
White Film	No nitrite found

**Razor Blade (Copper)**

Sample	Panel 1	Panel 2	Panel 3	Overall
Yellow Film (Labeled Side)	Fail	Fail	Fail	Fail
Yellow Film (Unlabeled Side)	Fail	Fail	Fail	Fail
White Film (Labeled Side)	Pass	Fail	Fail	Fail
White Film (Unlabeled Side)	Fail	Fail	Fail	Fail
Control	Fail	-	-	Fail

**Razor Blade (Steel)**

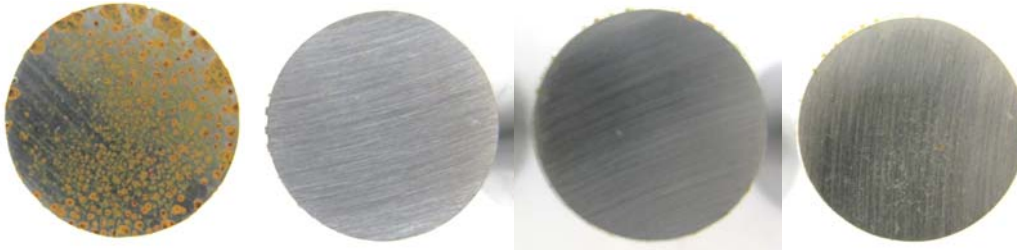
Sample	Panel 1	Panel 2	Panel 3	Overall
Yellow Film (Labeled Side)	Pass	Pass	Pass	Pass
Yellow Film (Unlabeled Side)	Pass	Pass	Fail	Pass
White Film (Labeled Side)	Fail	Fail	Fail	Fail
White Film (Unlabeled Side)	Fail	Fail	Fail	Fail
Control	Fail	-	-	Fail

### VIA Test

Film	Plug 1	Plug 2	Plug 3	Overall
Yellow Film	3	2	2	Pass
White Film	0	1	2	Fail
Control	0	-	-	Fail

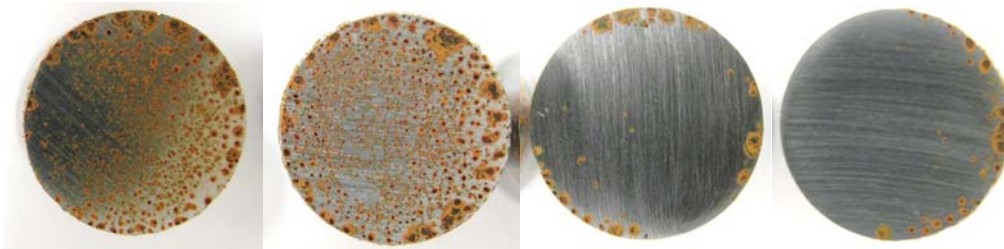
### Photos from VIA Test:

#### Yellow Film



From left to right: Control, Plug 1, Plug 2, Plug 3


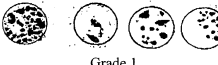
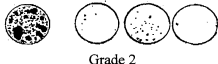
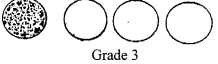
#### White Film



From left to right: Control, Plug 1, Plug 2, Plug 3

### VIA Test Grading

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 yellow Zerust film does provide sufficient vapor phase protection. It also provides contact phase protection for carbon steel, but not for copper.

The white Zerust film does not provide sufficient corrosion protection on the metals tested, for either contact phase or vapor phase.