

# PURAFIL ENVIRONMENTAL CORROSION REPORT

21-Oct-2010

Company: 115908

Sales Order #: C002688

CCC Panel #: P67651

Date In: 29-Sep-2010

Date Out: 13-Oct-2010

Days In Service: 14

Room Area ID: Supply

Reference #:

115908

**DO NOT TOUCH METAL COUPON**

**Corrosion Classification Coupon**

Company	
Address	
Room/Area I.D. <i>Supply</i>	
Date In <i>9/29/10</i>	Time In: <i>15:55</i> a.m. p.m.
Date Out <i>10/13/10</i>	Time Out: <i>9:35</i> a.m. p.m.
Coupon <i>67651</i>	Tracking # <i>02688</i>
Serial #	

Industrial   
 ERM   
 Preservation   
 CIF

**PURAFIL**  
 First...in clean air

2654 Weaver Way • Doraville, Georgia 30340  
 Ph: (770) 662-8545 • (800) 222-6367  
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<b>CCC Panel # P67651</b>
<b>ISA Class G1</b>
Mild

<b>Copper Corrosion</b>
228 Å/30 Days
<b>Silver Corrosion</b>
321 Å/30 Days

(see next page for complete analysis)

### Summary for PURAFIL CCC # P67651

The electrolytic reduction analysis on Corrosion Classification Coupon #P67651 shows the presence of only very low concentrations of contaminants in the environment tested. The hydrogen sulfide level is not expected to exceed 3 ppb and the sulfur dioxide level should be less than 10 ppb. During the test period, corrosion, as shown by the copper coupon, is not a factor in determining equipment reliability.

Please note: Copper's reactivity is sensitive to temperature and relative humidity and can therefore exhibit seasonal variation. For example, below 30% relative humidity (typical for heated indoor air in winter), copper readings will be dramatically reduced. However, silver's reactivity is not affected by temperature and relative humidity. Due to the elevated level of film growth on the silver coupon, corrosion may be a factor in determining equipment reliability; continued monitoring is recommended.

Your local representative for additional information and assistance is:

Environmental Health and Eng  
 117 Fourth Avenue, Needham MA 02494, USA  
 tminegishi@eheinc.com

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Purafil, Inc. / 2654 Weaver Way, Doraville GA 30340 USA / (770) 662-8545 / (770) 263-6922  
 Email: purafil@purafil.com / Internet: http://www.purafil.com

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**PURAFIL CCC # P67651 Analysis Results**

<b>Corrosion Film Composition</b>				<b>Gold Coupon - Magnified 20x</b>
	Projections			
	<u>30 Days</u>	<u>1 Year</u>	<u>5 Year</u>	
<b>Copper Films</b>				
Cu <sub>2</sub> S	0 Å	0 Å	0 Å	
Cu <sub>2</sub> O	228 Å	304 Å	397 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	228 Å	304 Å	397 Å	
<b>Silver Films</b>				
AgCl	0 Å	0 Å	0 Å	
Ag <sub>2</sub> S	321 Å	3904 Å	19522 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	321 Å	3904 Å	19522 Å	

**Gold Pore Corrosion:**  
 Note: 1000 Å = 0.1 micron

**Equipment Reliability Correlation**  
 (ISA Standard S71.04-1985 for Copper)

