

# PURAFIL ENVIRONMENTAL CORROSION REPORT

26-Oct-2010

Company: 116149

Sales Order #: C002697

CCC Panel #: P68017

Date In: 22-Sep-2010

Date Out: 06-Oct-2010

Days In Service: 14

Room Area ID:

Reference #:

**DO NOT TOUCH METAL COUPON**

**Corrosion Classification Coupon**

Company <b>116149</b>	
Address	
Room/Area I.D.	
Date In <b>9/22/10</b>	Time In: <b>15:50</b> a.m. p.m.
Date Out <b>10/6/10</b>	Time Out: <b>8:40</b> a.m. p.m.
Coupon <b>68017</b>	Tracking # <b>02697</b>
Serial #	
<input type="checkbox"/> Industrial <input type="checkbox"/> ERM <input type="checkbox"/> Preservation <input type="checkbox"/> CIF	

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

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<b>CCC Panel # P68017</b>
<b>ISA Class G2</b>
Moderate

<b>Copper Corrosion</b>
884 Å/30 Days
<b>Silver Corrosion</b>
334 Å/30 Days

(see next page for complete analysis)

### Summary for PURAFIL CCC # P68017

The electrolytic reduction analysis on Corrosion Classification Coupon #P68017 shows the presence of moderate concentrations of contaminants and high/variable humidity in the environment tested. The hydrogen sulfide level is expected to range between 3 and 10 ppb, sulfur dioxide between 10 and 100 ppb, and chlorine between 1 and 2 ppb. The presence of moisture and small amounts of inorganic chlorine compounds greatly accelerates sulfide corrosion. The effects of corrosion are measurable and may be a factor in determining equipment reliability.

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 # P68017 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	712 Å	2484 Å	5555 Å	
Cu <sub>2</sub> O	172 Å	601 Å	1344 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	884 Å	3085 Å	6899 Å	
<b>Silver Films</b>				
AgCl	93 Å	1136 Å	5678 Å	
Ag <sub>2</sub> S	241 Å	2928 Å	14641 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	334 Å	4064 Å	20319 Å	

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

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

