

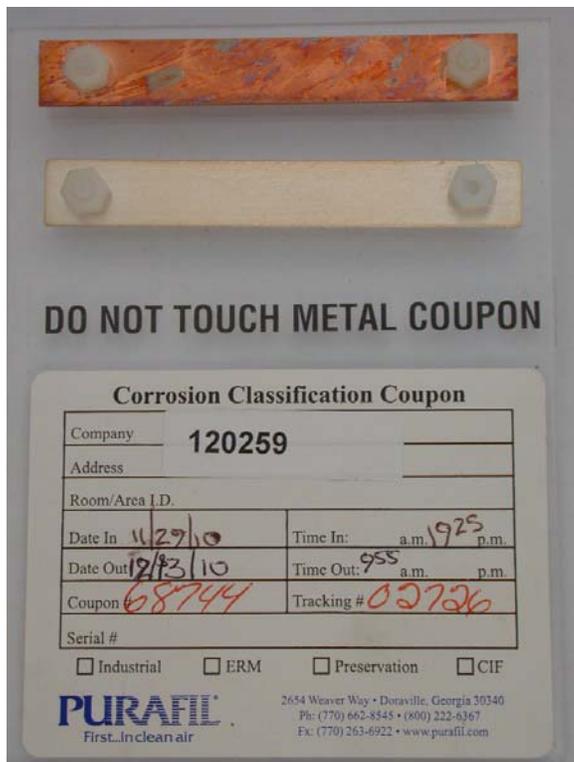
# PURAFIL ENVIRONMENTAL CORROSION REPORT

19-Jan-2011

**Company:** 120259

**Sales Order #:** C002726  
**CCC Panel #:** P68744  
**Date In:** 29-Nov-2010  
**Date Out:** 13-Dec-2010  
**Days In Service:** 14

**Room/Area ID:**  
**Reference #:**



<b>CCC Panel # P68744</b>
<b>ISA Class G3</b> Harsh
<b>Copper Corrosion</b> 1042 Å/30 Days
<b>Silver Corrosion</b> 380 Å/30 Days

(see next page for complete analysis)

### Summary for PURAFIL CCC # P68744

The electrolytic reduction analysis on Corrosion Classification Coupon #P68744 shows the presence of high concentrations of contaminants and high/variable humidity in the environment tested. The hydrogen sulfide level is expected to range between 10 and 50 ppb, sulfur dioxide between 100 and 300 ppb, and chlorine between 2 and 10 ppb. The presence of moisture and small amounts of inorganic chlorine compounds greatly accelerates sulfide corrosion. There is a high probability that equipment reliability will be adversely affected due to corrosive attack.

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 # P68744 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	280 Å	978 Å	2187 Å	
Unknowns	762 Å	2658 Å	5944 Å	
Totals	1042 Å	3636 Å	8131 Å	
<b>Silver Films</b>				
AgCl	62 Å	757 Å	3785 Å	
Ag <sub>2</sub> S	180 Å	2196 Å	10981 Å	
Unknowns	138 Å	1680 Å	8402 Å	
Totals	380 Å	4633 Å	23168 Å	
<b>Gold Pore Corrosion:</b>				
Note: 1000 Å = 0.1 micron				

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

