

# PURAFIL ENVIRONMENTAL CORROSION REPORT

25-Jun-2010

Company: 111354

Sales Order #: C002697

CCC Panel #: P67971

Date In: 04-Jun-2010

Date Out: 18-Jun-2010

Days In Service: 14

Room Area ID:

Reference #:



**DO NOT TOUCH METAL COUPON**

**Corrosion Classification Coupon**

Company	111354		
Address			
Room/Area I.D.			
Date In	6/4/10	Time In:	10:45 a.m. p.m.
Date Out	6/18/10	Time Out:	0:25 a.m. p.m.
Coupon #	67971	Tracking #	02697
Serial #			
<input type="checkbox"/> Industrial <input type="checkbox"/> ERM <input type="checkbox"/> Preservation <input type="checkbox"/> CIF			


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<b>CCC Panel # P67971</b>
<b>ISA Class G2</b>
Moderate

<b>Copper Corrosion</b>
866 Å/30 Days
<b>Silver Corrosion</b>
525 Å/30 Days

(see next page for complete analysis)

### Summary for PURAFIL CCC # P67971

The electrolytic reduction analysis on Corrosion Classification Coupon #P67971 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 CCC # P67971 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	378 Å	1320 Å	2951 Å	
Cu <sub>2</sub> O	115 Å	401 Å	896 Å	
Unknowns	373 Å	1301 Å	2910 Å	
Totals	866 Å	3022 Å	6757 Å	
<b>Silver Films</b>				
AgCl	78 Å	946 Å	4731 Å	
Ag <sub>2</sub> S	341 Å	4148 Å	20742 Å	
Unknowns	106 Å	1288 Å	6442 Å	
Totals	525 Å	6382 Å	31915 Å	

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

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

