

# PURAFIL ENVIRONMENTAL CORROSION REPORT

28-May-2010

Company: 110386

Sales Order #: C002682  
 CCC Panel #: P67440  
 Date In: 08-May-2010  
 Date Out: 21-May-2010  
 Days In Service: 13

Room Area ID:  
 Reference #:



<b>CCC Panel # P67440</b>
<b>ISA Class G1</b> Mild
<b>Copper Corrosion</b> 147 Å/30 Days
<b>Silver Corrosion</b> 473 Å/30 Days

(see next page for complete analysis)

### Summary for PURAFIL CCC # P67440

The electrolytic reduction analysis on Corrosion Classification Coupon #P67440 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 CCC # P67440 Analysis Results

Corrosion Film Composition				Gold Coupon - Magnified 20x
	Projections			
	30 Days	1 Year	5 Year	
<b>Copper Films</b>				
Cu <sub>2</sub> S	0 Å	0 Å	0 Å	
Cu <sub>2</sub> O	147 Å	194 Å	253 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	147 Å	194 Å	253 Å	
<b>Silver Films</b>				
AgCl	0 Å	0 Å	0 Å	
Ag <sub>2</sub> S	473 Å	5755 Å	28776 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	473 Å	5755 Å	28776 Å	

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

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

