2/3/2011 CCC - P68755

PURAFIL ENVIRONMENTAL CORROSIVITY REPORT

18-Jan-2011

Company: 120256

Room/Area ID: Reference #:



 Sales Order #:
 C002726

 CCC Panel #:
 P68755

 Date In:
 29-Nov-2010

 Date Out:
 13-Dec-2010

Days In Service: 14

CCC Panel # P68755

ISA Class G1 Mild

Copper Corrosion 221 Å/30 Days

Silver Corrosion 399 Å/30 Days

(see next page for complete analysis)

Summary for PURAFIL CCC # P68755

The electrolytic reduction analysis on Corrosion Classification Coupon #P68755 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 # P68755 Analysis Results

Corrosion Film Composition Projections				Gold Coupon - Magnified 20x
	30 Days	1 Year	<u>5 Year</u>	
Copper Films Cu ₂ S	0 Å	0 Å	0 Å	
Cu ₂ O	123 Å	164 Å	215 Å	
Unknow ns	98 Å	131 Å	171 Å	
Totals	221 Å	295 Å	386 Å	
Silver Films	٥ *	2 8		
AgCl	0 Å	0 Å	0 Å	
Ag ₂ S	399 Å	4856 Å	24280 Å	
Unknow ns	0 Å	0 Å	0 Å	
Totals	399 Å	4856 Å	24280 Å	
Gold Pore Corrosion: Note: 1000 Å = 0.1 micron				

Equipment Reliability Correlation

(ISA Standard S71.04-1985 for Copper)



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