# PURAFIL ENVIRONMENTAL CORROSIVITY REPORT

28-May-2010

**Company:** 110329

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

**Sales Order #:** C002682
**CCC Panel #:** P67427
**Date In:** 06-May-2010
**Date Out:** 21-May-2010
**Days In Service:** 15


**CCC Panel # P67427**

**ISA Class G1**
Mild

**Copper Corrosion**
176 Å/30 Days

**Silver Corrosion**
415 Å/30 Days

(see next page for complete analysis)

**Summary for PURAFIL CCC # P67427**

The electrolytic reduction analysis on Corrosion Classification Coupon #P67427 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

# PURAFIL CCC # P67427 Analysis Results

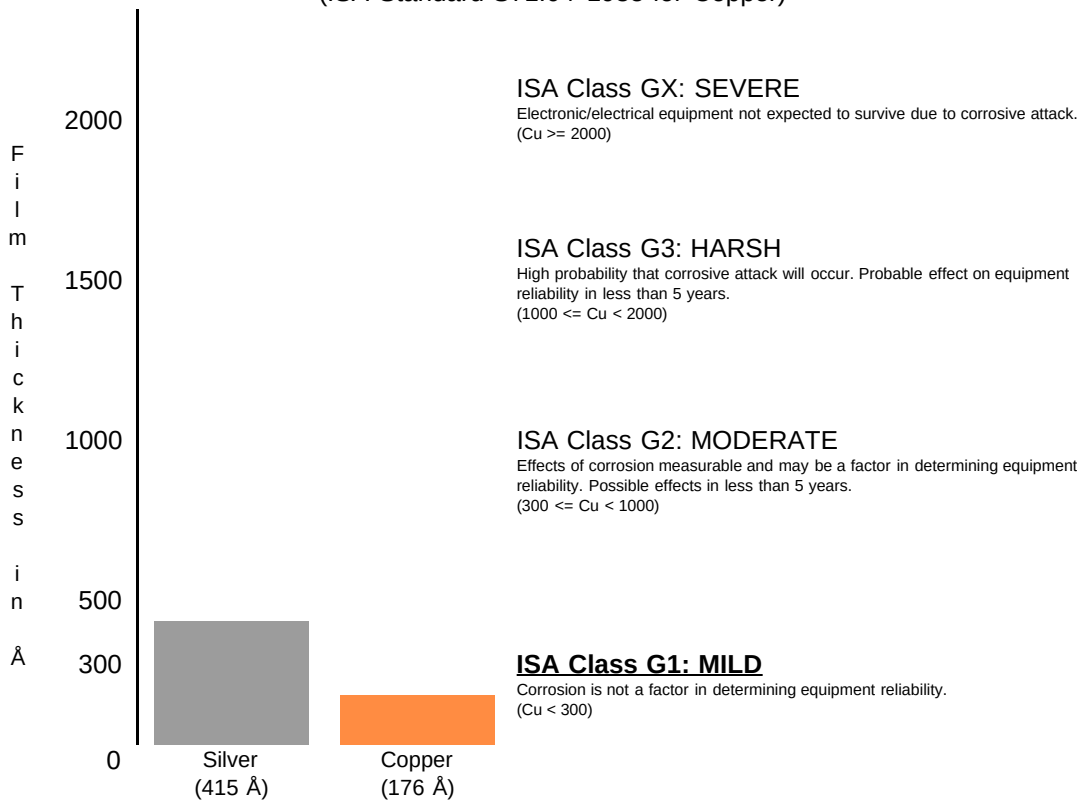
## Corrosion Film Composition

| | Projections | | |
|---|---|---|---|
| | 30 Days | 1 Year | 5 Year |
| **Copper Films** | | | |
| $Cu_2S$ | 0 Å | 0 Å | 0 Å |
| $Cu_2O$ | 128 Å | 174 Å | 227 Å |
| Unknowns | 48 Å | 65 Å | 84 Å |
| Totals | 176 Å | 239 Å | 311 Å |
| **Silver Films** | | | |
| AgCl | 0 Å | 0 Å | 0 Å |
| $Ag_2S$ | 318 Å | 3872 Å | 19359 Å |
| Unknowns | 97 Å | 1176 Å | 5882 Å |
| Totals | 415 Å | 5048 Å | 25241 Å |

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

## Gold Coupon - Magnified 20x

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




Displaying Page 2 Display Page 1