

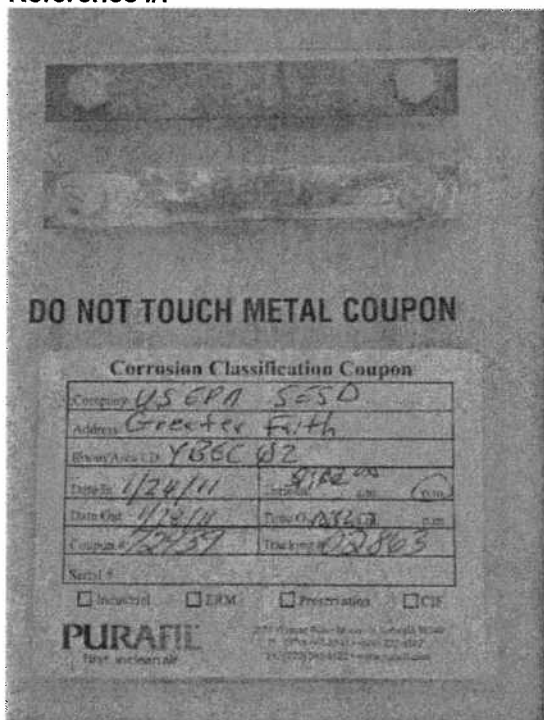
PURAFIL ENVIRONMENTAL CORROSION REPORT

10-Feb-2011

Company: US EPA SESD
Greater Faith

Sales Order #: C002863
CCC Panel #: P72439
Date In: 24-Jan-2011
Date Out: 28-Jan-2011
Days In Service: 4

Room/Area ID: YB6C 02
Reference #:



CCC Panel # P72439

ISA Class G3
Harsh

Copper Corrosion
1607 Å/30 Days

Silver Corrosion
2588 Å/30 Days

(see next page for complete analysis)

Summary for PURAFIL CCC # P72439

The electrolytic reduction analysis on Corrosion Classification Coupon #P72439 shows the presence of high concentrations of contaminants in the environment tested. The hydrogen sulfide level is expected to range between 10 and 50 ppb and the sulfur dioxide level between 100 and 300 ppb. There is a high probability that equipment reliability will be adversely affected by corrosive attack.

Your local representative for additional information and assistance is:
Purafil, Inc./Chris Moon
2654 Weaver Way, Doraville GA 30340, USA
Chris_Moon@Purafil.com 770-662-8545

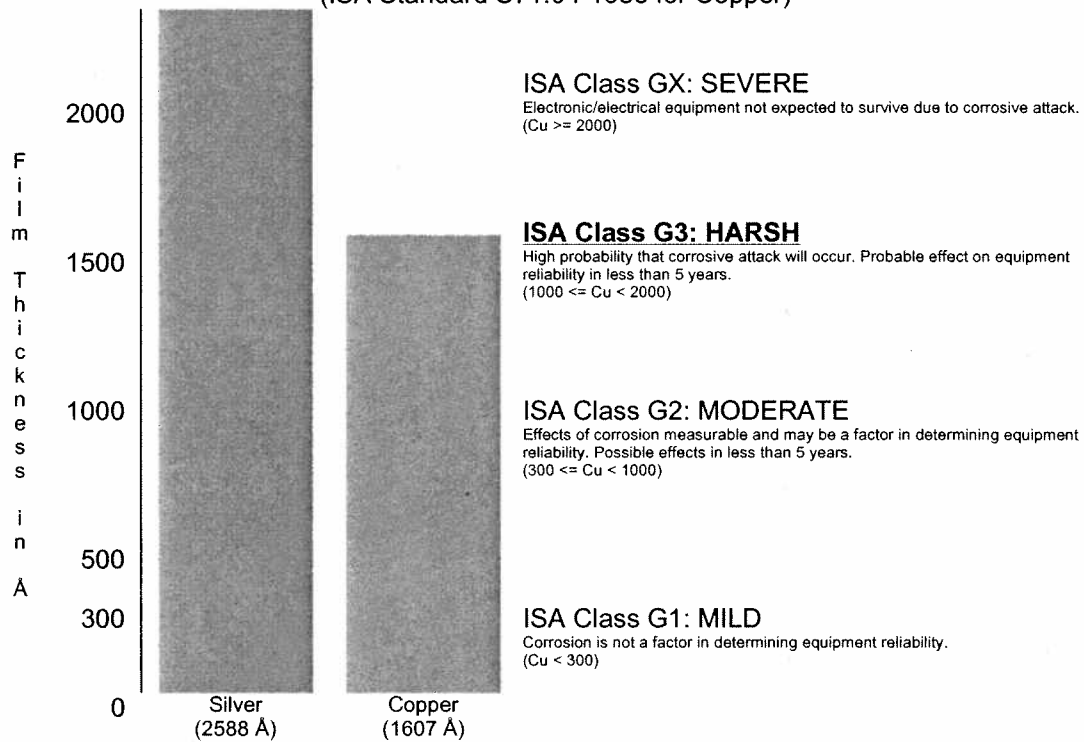
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PURAFIL CCC # P72439 Analysis Results

Corrosion Film Composition				Gold Coupon - Magnified 20x
	Projections			
	30 Days	1 Year	5 Year	
Copper Films				
Cu ₂ S	0 Å	0 Å	0 Å	
Cu ₂ O	716 Å	2499 Å	5587 Å	
Unknowns	891 Å	3108 Å	6950 Å	
Totals	1607 Å	5607 Å	12537 Å	
Silver Films				
AgCl	0 Å	0 Å	0 Å	
Ag ₂ S	2105 Å	25622 Å	128112 Å	
Unknowns	483 Å	5882 Å	29408 Å	
Totals	2588 Å	31504 Å	157520 Å	
Gold Pore Corrosion:				
Note: 1000 Å = 0.1 micron				

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



PURAFIL ENVIRONMENTAL CORROSION REPORT

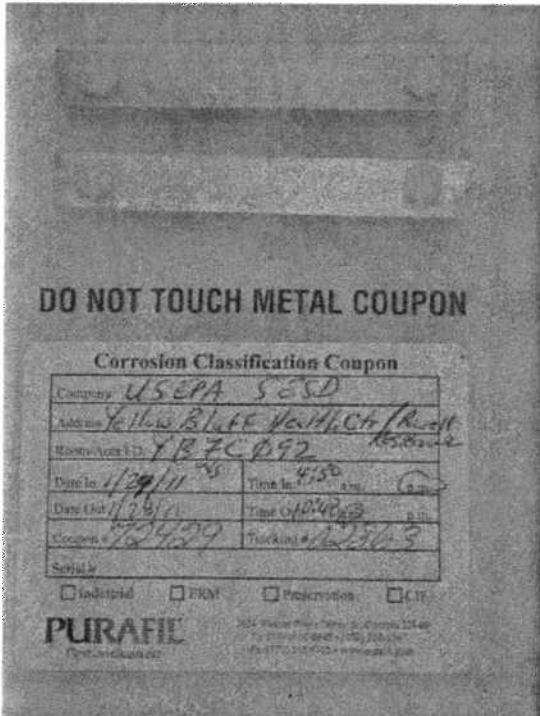
10-Feb-2011

Company: US EPA SESD
Yellow Bluff Health Ctr / Powell Residence

Room/Area ID: YB7C092

Reference #:

Sales Order #: C002863
CCC Panel #: P72429
Date In: 24-Jan-2011
Date Out: 28-Jan-2011
Days In Service: 4



CCC Panel # P72429

ISA Class G2
Moderate

Copper Corrosion
306 Å/30 Days

Silver Corrosion
842 Å/30 Days

(see next page for complete analysis)

Summary for PURAFIL CCC # P72429

The electrolytic reduction analysis on Corrosion Classification Coupon #P72429 shows the presence of moderate concentrations of contaminants in the environment tested. The hydrogen sulfide level is expected to range between 3 and 10 ppb and the sulfur dioxide level between 10 and 100 ppb. The effects of corrosion are measurable and may be a factor in determining equipment reliability.

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Chris_Moon@Purafil.com 770-662-8545

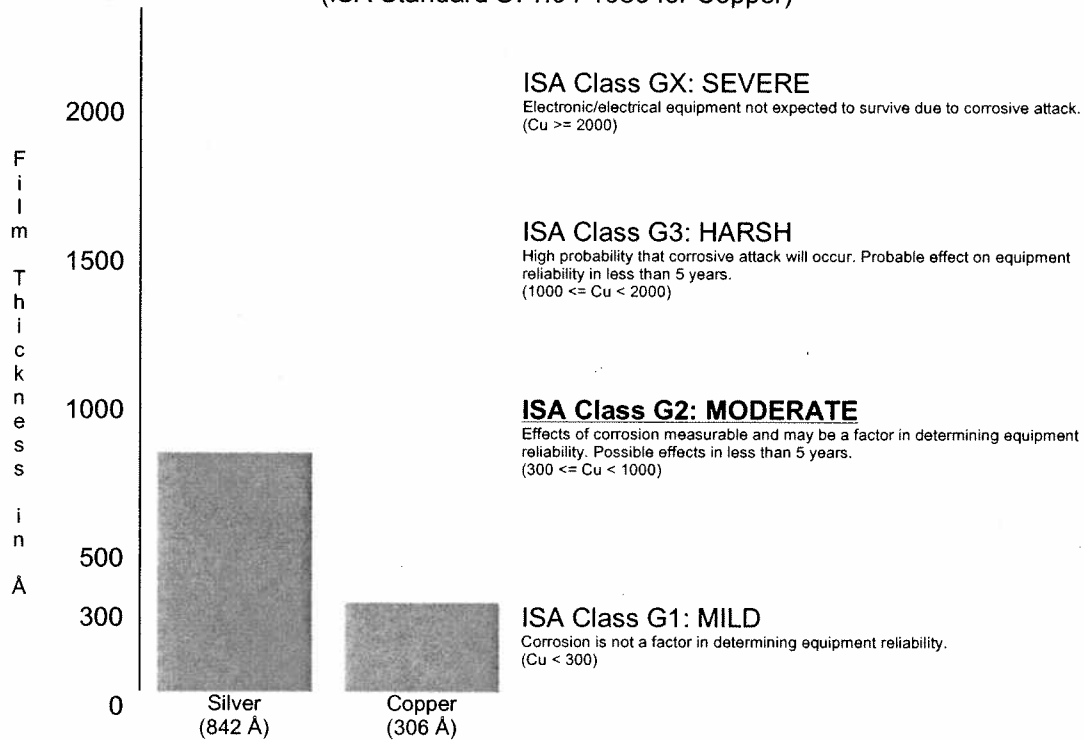
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PURAFIL CCC # P72429 Analysis Results

Corrosion Film Composition				Gold Coupon - Magnified 20x
	Projections			
	30 Days	1 Year	5 Year	
Copper Films				
Cu ₂ S	0 Å	0 Å	0 Å	
Cu ₂ O	179 Å	194 Å	254 Å	
Unknowns	127 Å	138 Å	181 Å	
Totals	306 Å	332 Å	435 Å	
Silver Films				
AgCl	0 Å	0 Å	0 Å	
Ag ₂ S	842 Å	10249 Å	51245 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	842 Å	10249 Å	51245 Å	
Gold Pore Corrosion:				
Note: 1000 Å = 0.1 micron				

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



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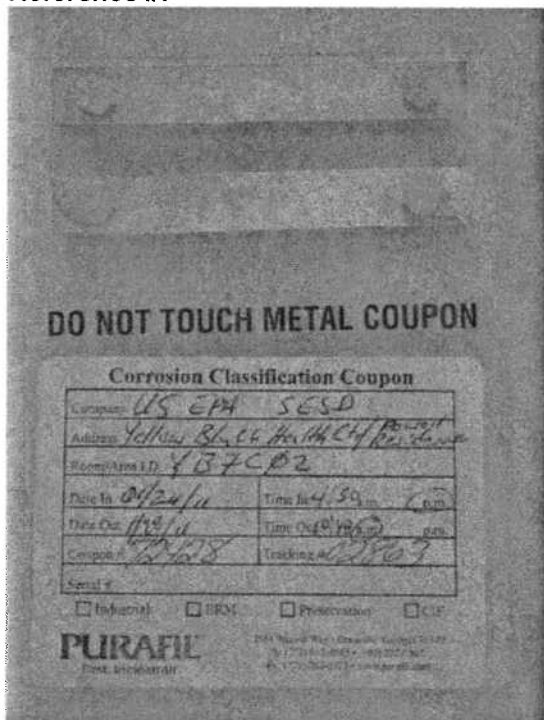
PURAFIL ENVIRONMENTAL CORROSION REPORT

10-Feb-2011

Company: US EPA SESD
Yellow Bluff Health Ctr / Powell Residence

Sales Order #: C002863
CCC Panel #: P72428
Date In: 24-Jan-2011
Date Out: 28-Jan-2011
Days In Service: 4

Room/Area ID: YB7C02
Reference #:



CCC Panel # P72428

ISA Class G2
Moderate

Copper Corrosion
364 Å/30 Days

Silver Corrosion
1193 Å/30 Days

(see next page for complete analysis)

Summary for PURAFIL CCC # P72428

The electrolytic reduction analysis on Corrosion Classification Coupon #P72428 shows the presence of moderate concentrations of contaminants in the environment tested. The hydrogen sulfide level is expected to range between 3 and 10 ppb and the sulfur dioxide level between 10 and 100 ppb. The effects of corrosion are measurable and may be a factor in determining equipment reliability.

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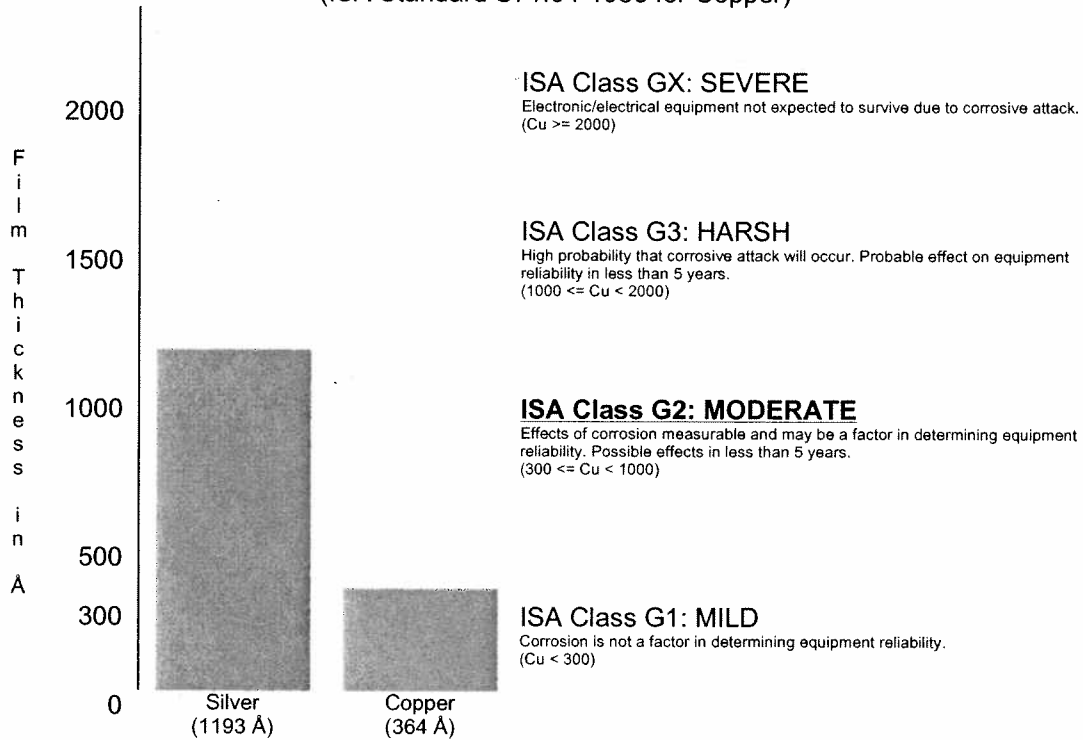
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PURAFIL CCC # P72428 Analysis Results

Corrosion Film Composition				Gold Coupon - Magnified 20x
	Projections			
	30 Days	1 Year	5 Year	
Copper Films				
Cu ₂ S	0 Å	0 Å	0 Å	
Cu ₂ O	173 Å	187 Å	245 Å	
Unknowns	191 Å	207 Å	271 Å	
Totals	364 Å	394 Å	516 Å	
Silver Films				
AgCl	0 Å	0 Å	0 Å	
Ag ₂ S	1193 Å	14519 Å	72597 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	1193 Å	14519 Å	72597 Å	
Gold Pore Corrosion:				
Note: 1000 Å = 0.1 micron				

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



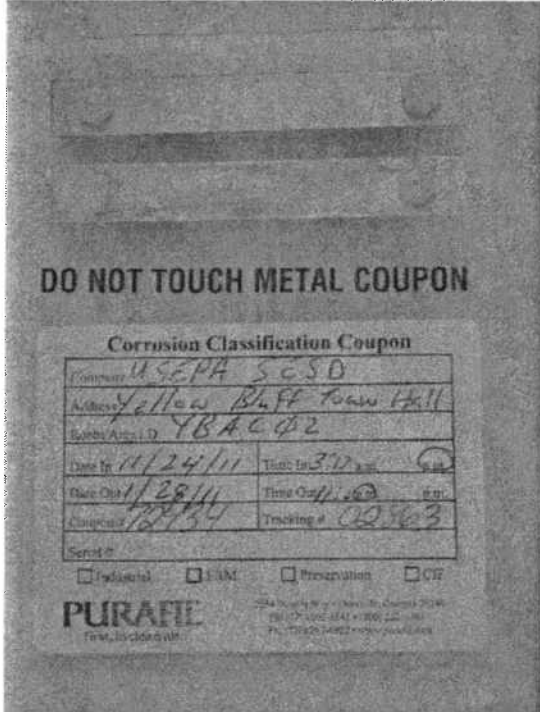
PURAFIL ENVIRONMENTAL CORROSION REPORT

10-Feb-2011

Company: US EPA SED
Yellow Bluff Town Hall

Sales Order #: C002863
CCC Panel #: P72434
Date In: 24-Jan-2011
Date Out: 28-Jan-2011
Days In Service: 4

Room/Area ID: YBAC02
Reference #:



CCC Panel # P72434
ISA Class G2
Moderate

Copper Corrosion
388 Å/30 Days
Silver Corrosion
1228 Å/30 Days

(see next page for complete analysis)

Summary for PURAFIL CCC # P72434

The electrolytic reduction analysis on Corrosion Classification Coupon #P72434 shows the presence of moderate concentrations of contaminants in the environment tested. The hydrogen sulfide level is expected to range between 3 and 10 ppb and the sulfur dioxide level between 10 and 100 ppb. The effects of corrosion are measurable and may be a factor in determining equipment reliability.

Your local representative for additional information and assistance is:

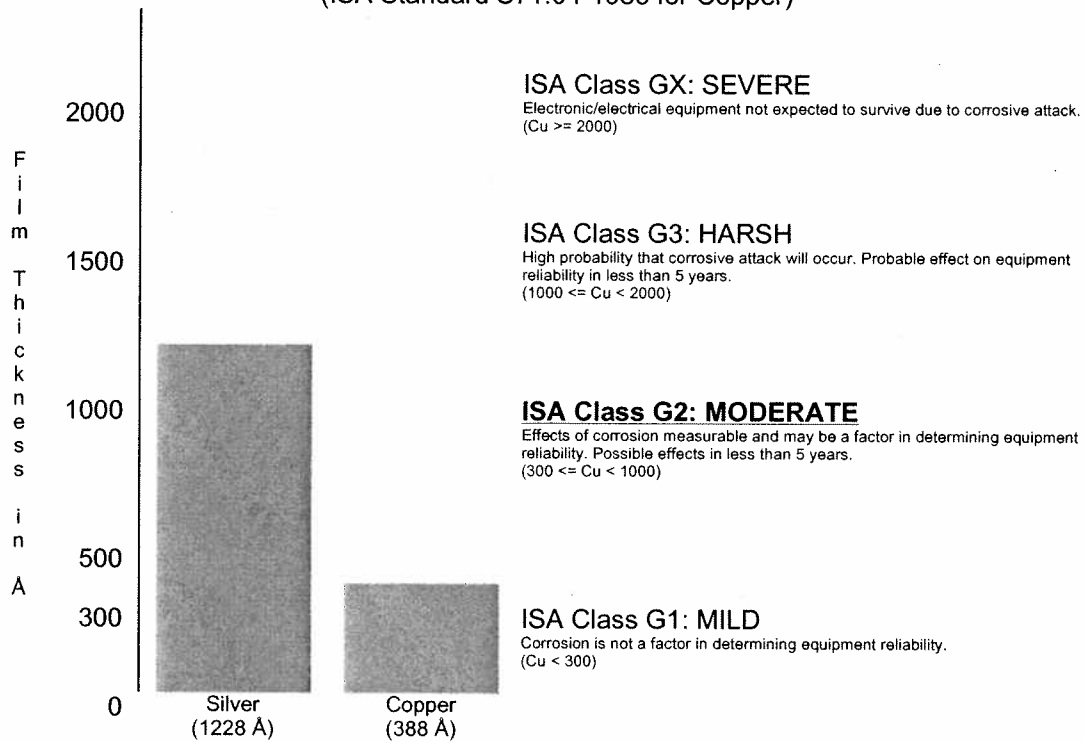
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PURAFIL CCC # P72434 Analysis Results

Corrosion Film Composition				Gold Coupon - Magnified 20x
	<u>30 Days</u>	<u>Projections</u>		
		<u>1 Year</u>	<u>5 Year</u>	
Copper Films				
Cu ₂ S	0 Å	0 Å	0 Å	
Cu ₂ O	218 Å	236 Å	308 Å	
Unknowns	170 Å	184 Å	241 Å	
Totals	388 Å	420 Å	549 Å	
Silver Films				
AgCl	0 Å	0 Å	0 Å	
Ag ₂ S	1228 Å	14946 Å	74732 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	1228 Å	14946 Å	74732 Å	
Gold Pore Corrosion:				
Note: 1000 Å = 0.1 micron				

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

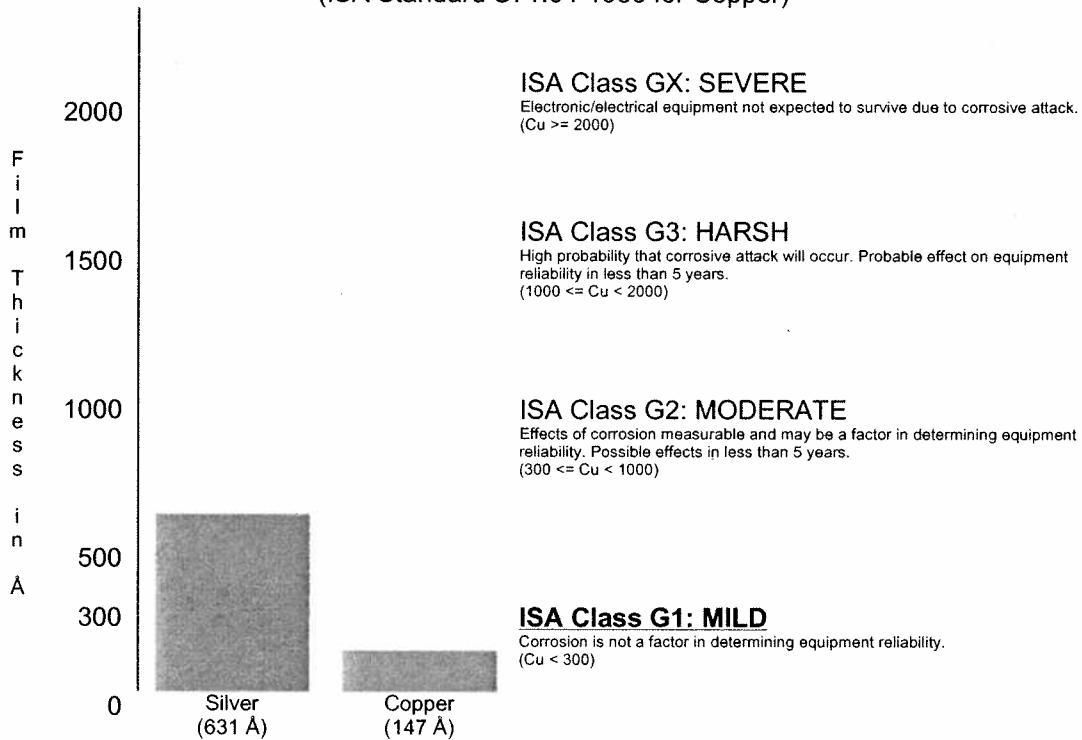


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PURAFIL CCC # P72426 Analysis Results

	Corrosion Film Composition			Gold Coupon - Magnified 20x
	30 Days	Projections		
		1 Year	5 Year	
Copper Films				
Cu ₂ S	0 Å	0 Å	0 Å	
Cu ₂ O	147 Å	160 Å	209 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	147 Å	160 Å	209 Å	
Silver Films				
AgCl	0 Å	0 Å	0 Å	
Ag ₂ S	631 Å	7687 Å	38434 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	631 Å	7687 Å	38434 Å	
Gold Pore Corrosion:				
Note: 1000 Å = 0.1 micron				

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



PURAFIL ENVIRONMENTAL CORROSION REPORT

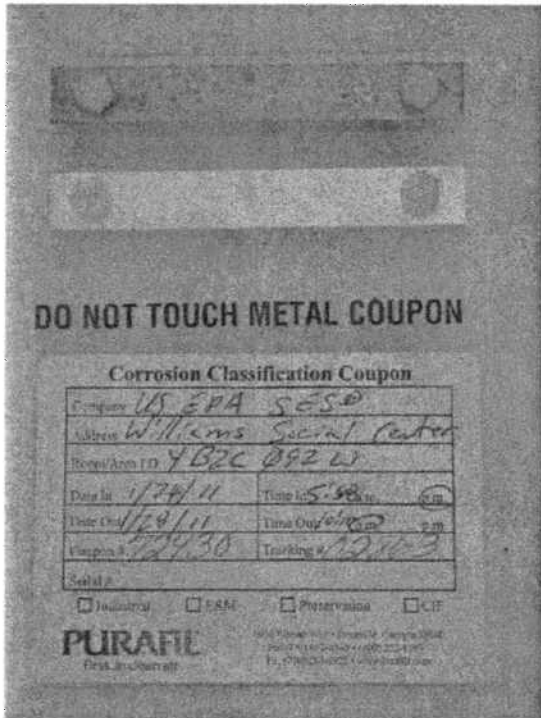
10-Feb-2011

Company: US EPA SESD
Williams Social Center

Room/Area ID: YB2C 092W

Reference #:

Sales Order #: C002863
CCC Panel #: P72430
Date In: 24-Jan-2011
Date Out: 28-Jan-2011
Days In Service: 4



CCC Panel # P72430

ISA Class G2
Moderate

Copper Corrosion
842 Å/30 Days

Silver Corrosion
719 Å/30 Days

(see next page for complete analysis)

Summary for PURAFIL CCC # P72430

The electrolytic reduction analysis on Corrosion Classification Coupon #P72430 shows the presence of moderate concentrations of contaminants in the environment tested. The hydrogen sulfide level is expected to range between 3 and 10 ppb and the sulfur dioxide level between 10 and 100 ppb. The effects of corrosion are measurable and may be a factor in determining equipment reliability.

Your local representative for additional information and assistance is:
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2654 Weaver Way, Doraville GA 30340, USA
Chris_Moon@Purafil.com 770-662-8545

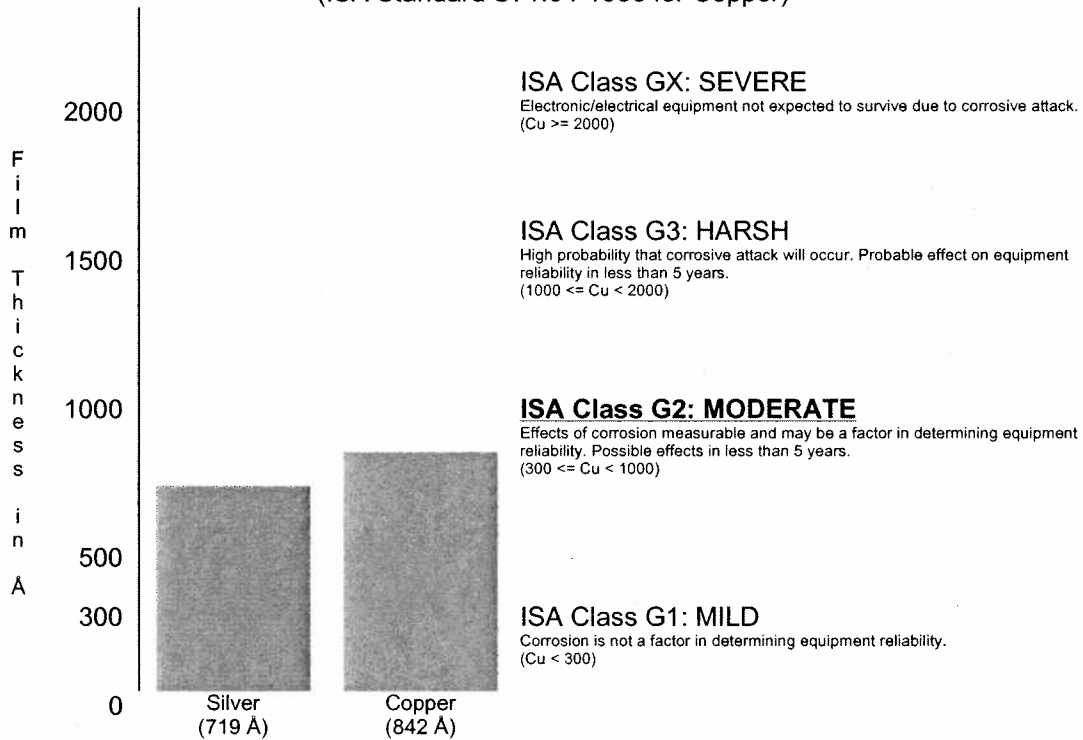
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PURAFIL CCC # P72430 Analysis Results

Corrosion Film Composition				Gold Coupon - Magnified 20x
	Projections			
	<u>30 Days</u>	<u>1 Year</u>	<u>5 Year</u>	
Copper Films				
Cu ₂ S	375 Å	616 Å	1053 Å	
Cu ₂ O	170 Å	280 Å	478 Å	
Unknowns	297 Å	488 Å	835 Å	
Totals	842 Å	1384 Å	2366 Å	
Silver Films				
AgCl	0 Å	0 Å	0 Å	
Ag ₂ S	719 Å	8754 Å	43772 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	719 Å	8754 Å	43772 Å	
Gold Pore Corrosion:				
Note: 1000 Å = 0.1 micron				

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



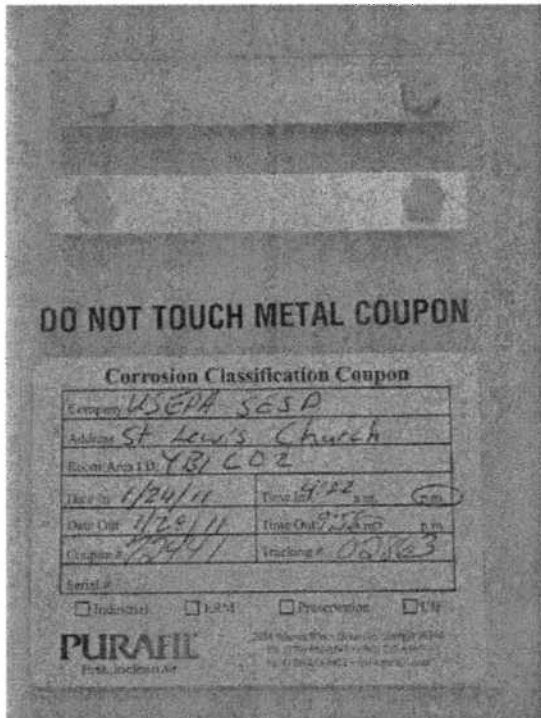
PURAFIL ENVIRONMENTAL CORROSIONIVITY REPORT

10-Feb-2011

Company: US EPA SESD
St. Lewis Church

Sales Order #: C002863
CCC Panel #: P72441
Date In: 24-Jan-2011
Date Out: 28-Jan-2011
Days In Service: 4

Room/Area ID: YB1C02
Reference #:



CCC Panel # P72441

ISA Class G1
Mild

Copper Corrosion
230 Å/30 Days

Silver Corrosion
491 Å/30 Days

(see next page for complete analysis)

Summary for PURAFIL CCC # P72441

The electrolytic reduction analysis on Corrosion Classification Coupon #P72441 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:

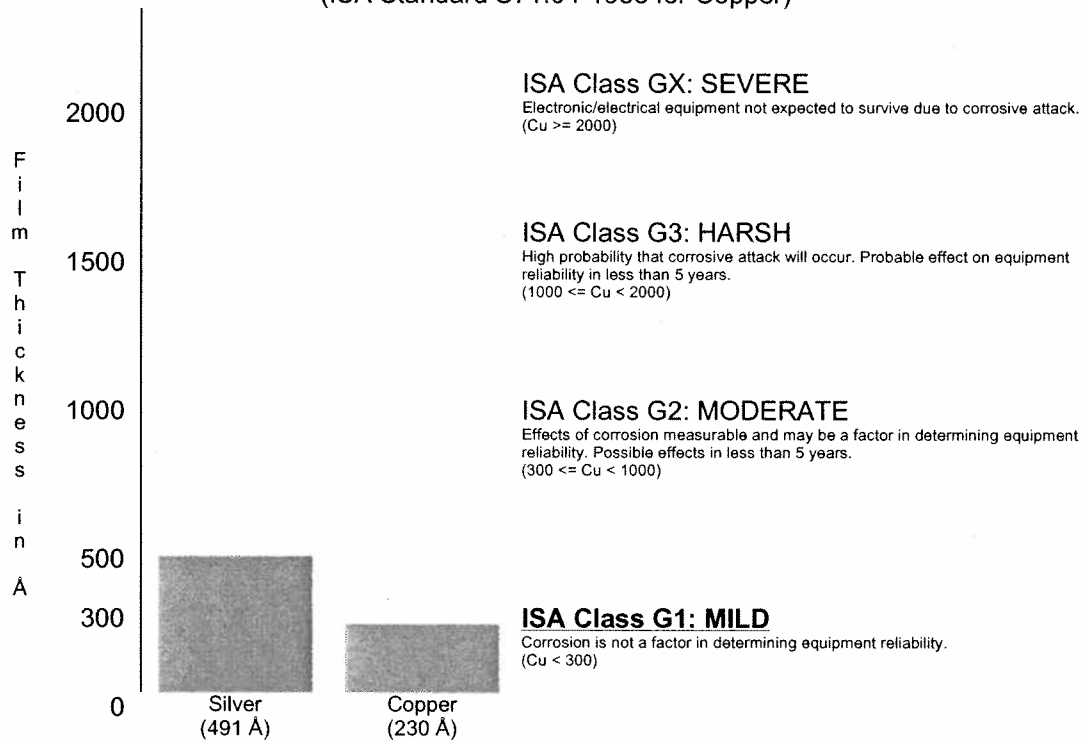
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Chris_Moon@Purafil.com 770-662-8545

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Email: purafil@purafil.com / Internet: http://www.purafil.com

PURAFIL CCC # P72441 Analysis Results

	Corrosion Film Composition Projections			Gold Coupon - Magnified 20x
	30 Days	1 Year	5 Year	
Copper Films				
Cu ₂ S	0 Å	0 Å	0 Å	
Cu ₂ O	230 Å	250 Å	327 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	230 Å	250 Å	327 Å	
Silver Films				
AgCl	0 Å	0 Å	0 Å	
Ag ₂ S	491 Å	5979 Å	29893 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	491 Å	5979 Å	29893 Å	
Gold Pore Corrosion:				
Note: 1000 Å = 0.1 micron				

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



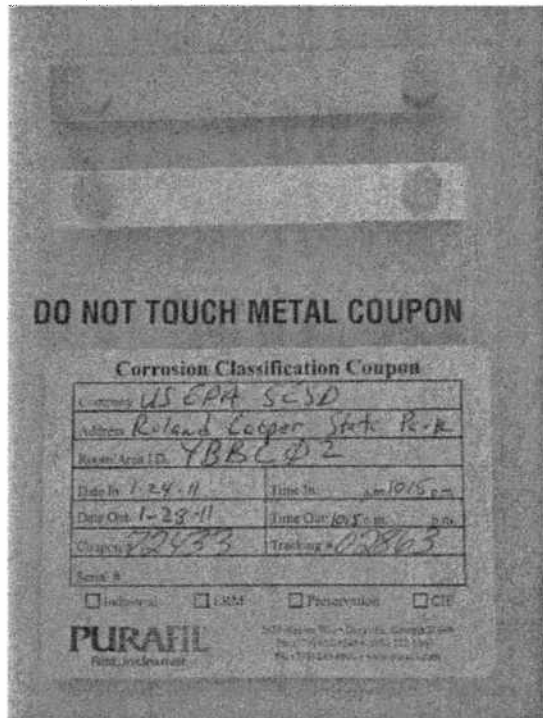
PURAFIL ENVIRONMENTAL CORROSION REPORT

10-Feb-2011

Company: US EPA SESD
Roland Copper State Park

Sales Order #: C002863
CCC Panel #: P72433
Date In: 24-Jan-2011
Date Out: 28-Jan-2011
Days In Service: 4

Room/Area ID: YBBC02
Reference #:



CCC Panel # P72433

ISA Class G1
Mild

Copper Corrosion
230 Å/30 Days

Silver Corrosion
631 Å/30 Days

(see next page for complete analysis)

Summary for PURAFIL CCC # P72433

The electrolytic reduction analysis on Corrosion Classification Coupon #P72433 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.

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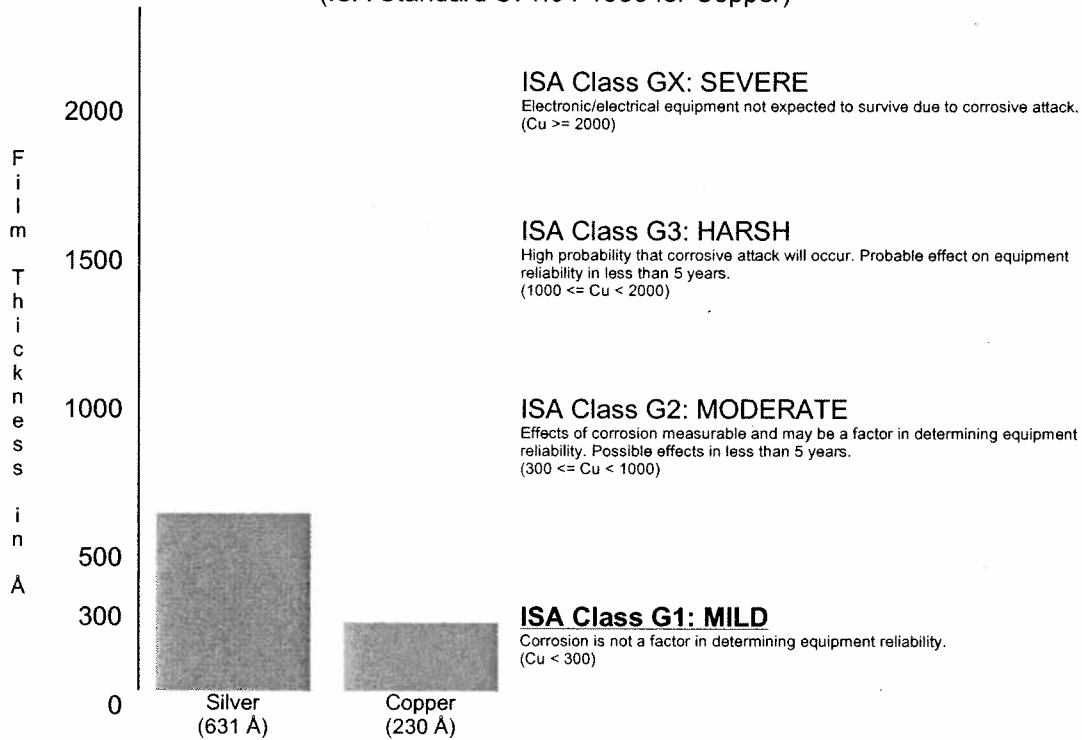
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PURAFIL CCC # P72433 Analysis Results

Corrosion Film Composition				Gold Coupon - Magnified 20x
	Projections			
	30 Days	1 Year	5 Year	
Copper Films				
Cu ₂ S	0 Å	0 Å	0 Å	
Cu ₂ O	230 Å	250 Å	327 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	230 Å	250 Å	327 Å	
Silver Films				
AgCl	0 Å	0 Å	0 Å	
Ag ₂ S	631 Å	7687 Å	38434 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	631 Å	7687 Å	38434 Å	
Gold Pore Corrosion:				
Note: 1000 Å = 0.1 micron				

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



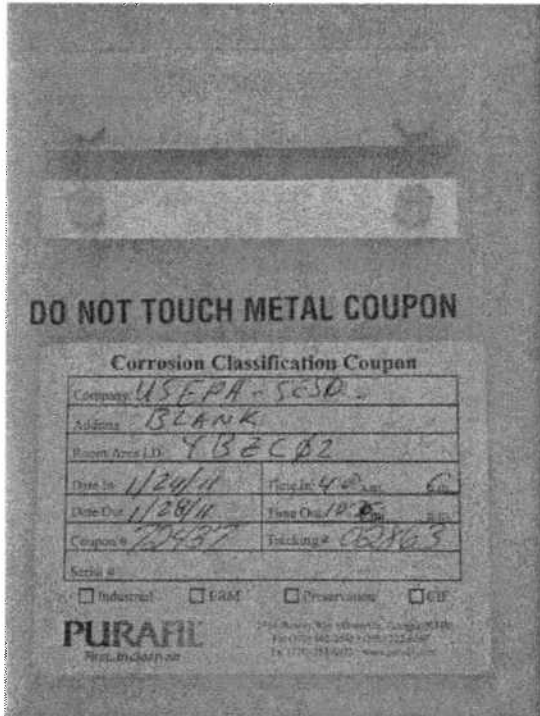
PURAFIL ENVIRONMENTAL CORROSION REPORT

10-Feb-2011

Company: US EPA SESD
Blank

Sales Order #: C002863
CCC Panel #: P72437
Date In: 24-Jan-2011
Date Out: 28-Jan-2011
Days In Service: 4

Room/Area ID: YBEC02
Reference #:



CCC Panel # P72437
ISA Class G2
Moderate

Copper Corrosion
300 Å/30 Days
Silver Corrosion
421 Å/30 Days

(see next page for complete analysis)

Summary for PURAFIL CCC # P72437

The electrolytic reduction analysis on Corrosion Classification Coupon #P72437 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.

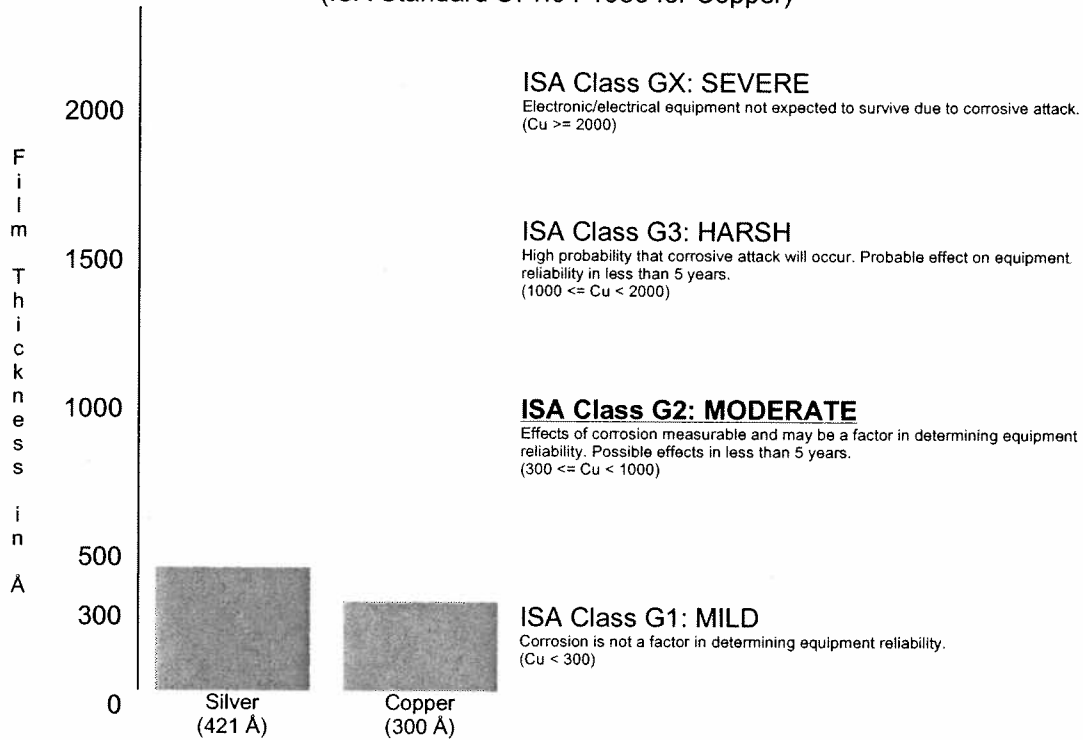
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PURAFIL CCC # P72437 Analysis Results

Corrosion Film Composition				Gold Coupon - Magnified 20x
	Projections			
	30 Days	1 Year	5 Year	
Copper Films				
Cu ₂ S	0 Å	0 Å	0 Å	
Cu ₂ O	77 Å	83 Å	109 Å	
Unknowns	223 Å	242 Å	316 Å	
Totals	300 Å	325 Å	425 Å	
Silver Films				
AgCl	0 Å	0 Å	0 Å	
Ag ₂ S	421 Å	5124 Å	25622 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	421 Å	5124 Å	25622 Å	
Gold Pore Corrosion:				
Note: 1000 Å = 0.1 micron				

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



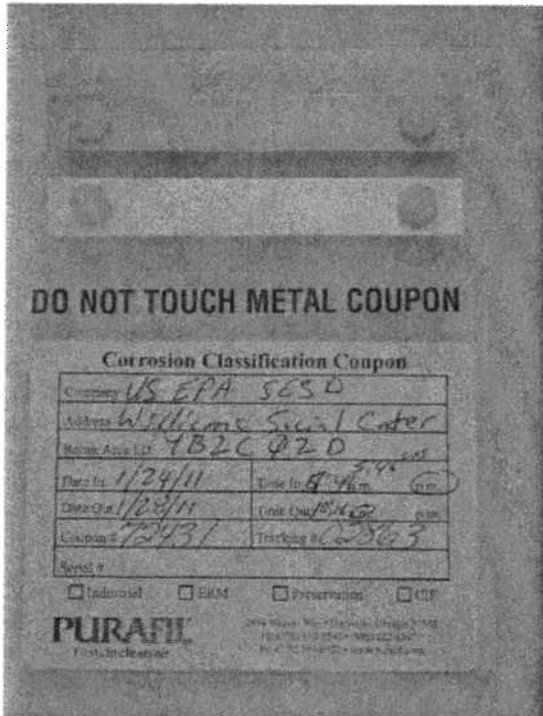
PURAFIL ENVIRONMENTAL CORROSION REPORT

10-Feb-2011

Company: US EPA SESD
William Social Center

Sales Order #: C002863
CCC Panel #: P72431
Date In: 24-Jan-2011
Date Out: 28-Jan-2011
Days In Service: 4

Room/Area ID: YB2C02D
Reference #:



CCC Panel # P72431

ISA Class G1
Mild

Copper Corrosion
299 Å/30 Days

Silver Corrosion
659 Å/30 Days

(see next page for complete analysis)

Summary for PURAFIL CCC # P72431

The electrolytic reduction analysis on Corrosion Classification Coupon #P72431 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.

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Email: purafil@purafil.com / Internet: http://www.purafil.com

PURAFIL CCC # P72431 Analysis Results

	Corrosion Film Composition			Gold Coupon - Magnified 20x
	30 Days	Projections		
		1 Year	5 Year	
Copper Films				
Cu ₂ S	0 Å	0 Å	0 Å	
Cu ₂ O	230 Å	250 Å	327 Å	
Unknowns	69 Å	75 Å	98 Å	
Totals	299 Å	325 Å	425 Å	
Silver Films				
AgCl	0 Å	0 Å	0 Å	
Ag ₂ S	659 Å	8028 Å	40142 Å	
Unknowns	0 Å	0 Å	0 Å	
Totals	659 Å	8028 Å	40142 Å	
Gold Pore Corrosion:				
Note: 1000 Å = 0.1 micron				

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

