

Uniform & Intergranular Corrosion ¹



Uniform corrosion is the destruction of a metal, relatively uniformly over the entire surface. Intergranular corrosion is the destruction of metal at the grain boundaries, usually on a microscopic scale.

Both types of corrosion can result in loss of structural integrity of the affected metal and potential loss of the use of the metal item. In the case of corrosion to aircraft, the loss can result in catastrophic failure.

The Forest Service requires corrosion tests throughout the evaluation period to minimize the risk of corrosion-caused equipment failure in the field.

Proper maintenance and cleaning of the equipment will also help to minimize these potential failures.

Product Performance Data on following pages

Standard Test Procedure 5.1 provides instructions for the uniform corrosion test.

Standard Test Procedure 5.2 provides instructions for the intergranular corrosion test.



Uniform Corrosion ¹ FireFoam 103B



	20	24-T3 <i>A</i>	Alumin	um		4130	Steel		Yellow Brass	Az	31B M	agnesi	um
	_	otal		rtial	To	tal		rtial	Partial		tal	_	rtial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
-							m	ils-per-y	/ear				
Concentrate													
Fresh	0.1	0.1	0.1	0.1	1.2	1.5	1.3	3.8	0.1	0.9	0.7	0.7	8.0
1.0-Percent Solution ³													
Fresh	0.1	0.2	0.1	0.1	1.0	1.9	1.0	2.7	0.1	1.4	2.3	1.1	1.7
1 Year Missoula	0.1	0.1	0.1	0.4	8.0	1.5	8.0	2.0	0.1	2.0	2.6	1.5	1.8
1 Year San Dimas	0.1	0.1	0.1	0.1	0.9	2.1	1.1	3.4	0.1	1.7	2.1	0.9	1.2
0.1-Percent Solution ³													
Fresh	0.1	0.1	0.1	0.1	1.0	1.6	1.0	2.1	0.1	2.6	2.2	2.0	1.2
1 Year Missoula	0.1	0.1	0.1	0.1	0.9	1.7	0.6	2.1	0.1	1.9	2.0	1.2	1.2
1 Year San Dimas	0.1	0.1	0.1	0.1	1.2	2.3	0.9	2.5	0.1	1.7	2.7	1.5	1.7
Notes:													
Uniform corrosion rates (express) replicates.	ressed ir	n mils-pe	r-year)	were de	termine	d by 90-	day we	ight loss	tests. Values shown a	re the a	verage o	of all	
2 Results up to 0.1 mils-per-ye	ear are re	corded a	as 0.1 m	nils-per-y	ear.								
3 Meets the intergranular corr	osion req	uiremen	ts for al	uminum.	-								



Uniform Corrosion ¹ Phos-Chek WD 881



	20	24-T3 <i>A</i>	lumin	um		/1130	Steel		Yellow Brass	Λ-7	31B Ma	annei	um
	_	24-13 <i>F</i> otal		rtial	To	tal		rtial	Partial		tal	_	rtial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
remperature. I		120		120					rear				120
								ne per y	- Cur				
Concentrate													
Fresh	0.1	0.1	0.1	0.1	0.3	0.6	0.7	1.9	0.5	0.6	0.7	0.3	0.8
4 O Persont Solution 3 4													
1.0-Percent Solution ^{3, 4}	0.4	0.0	0.4	0.4	0.0	4.0	0.7	0.4	0.4	4.0	0.0	4.0	4.0
Fresh	0.1	0.2	0.1	0.1	0.8	1.3	0.7	2.4	0.1	1.0	2.3	1.0	1.6
1 Year - Missoula	0.1	0.1	0.1	0.1	1.0	1.3	0.8	2.1	0.1	1.3	2.6	1.0	1.6
1 Year - San Dimas	0.1	0.1	0.1	0.1	0.9	1.2	0.6	2.2	0.2	1.3	2.4	0.9	1.5
0.1-Percent Solution ^{3, 4}													
Fresh	0.1	0.1	0.1	0.1	0.9	1.6	0.7	2.1	0.1	1.3	1.8	1.1	1.2
	_	_	_	_		_	_		_	_	_		
1 Year - Missoula	0.1	0.1	0.1	0.1	1.1	1.4	0.6	1.5	0.1	1.4	1.7	1.3	1.0
1 Year - San Dimas	0.1	0.1	0.1	0.1	0.9	1.4	0.7	1.6	0.1	1.6	1.7	1.1	1.1
Notes:													,
Uniform corrosion rates (expr	essed in	mils-pe	r-year)	were de	termine	d by 90-	day wei	ight loss	tests. Values shown a	re the a	verage o	of all	
replicates.								-					
2 Results up to 0.1 mils-per-yea	ar are re	corded a	as 0.1 m	nils-per-y	/ear.								
3 Meets the intergranular corro	sion req	uiremen	ts for all	uminum.									
4 Meets the intergranular corros	sion req	uiremen	ts for m	agnesiui	m.								



Uniform Corrosion ¹ Pyrocap B-136



	20	24-T3 <i>A</i>	Alumin	um		4130	Steel		Yellow Brass	Az	31B M	agnesi	um
	To	otal	Pa	rtial	To	tal	Pa	rtial	Partial	То	tal	Pai	rtial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
							m	ils-per-y	/ear				
Concentrate													
Fresh	0.1	0.1	0.1	0.1	0.8	0.4	0.3	1.6	0.2	7.1	9.7	4.8	19
1.0-Percent Solution ³													
Fresh	0.1	0.3	0.1	0.1	0.5	1.9	0.7	2.7	0.1	3.0	1.8	1.6	1.6
1 Year - Missoula	0.1	0.1	0.1	0.1	0.5	1.8	0.5	2.7	0.1	N/A	N/A	N/A	N/A
1 Year - San Dimas	0.1	0.2	0.1	0.2	0.5	1.9	0.5	2.3	0.1	N/A	N/A	N/A	N/A
0.1-Percent Solution ³													
Fresh	0.1	0.1	0.1	0.1	0.6	1.3	0.6	1.9	0.1	1.4	1.0	1.1	1.0
1 Year - Missoula	0.1	0.1	0.1	0.1	0.5	2.1	0.5	2.7	0.1	N/A	N/A	N/A	N/A
1 Year - San Dimas	0.1	0.1	0.1	0.1	0.9	1.8	0.9	1.7	0.1	N/A	N/A	N/A	N/A
Notes:													
1 Uniform corrosion rates (expreplicates.	ressed ir	n mils-pe	r-year)	were de	termine	d by 90-	day we	ight loss	tests. Values shown a	re the a	verage (of all	
2 Results up to 0.1 mils-per-ye	ar are re	corded a	as 0.1 n	nils-per-v	/ear.								
3 Meets the intergranular corre													



Uniform Corrosion ¹ Phos-Chek WD 881-C



	20	24-T3 <i>A</i>	Alumin	um		4130	Steel		Yellow Brass	Az	31B Ma	agnesi	um
		otal		rtial	To	tal		rtial	Partial		tal	_	rtial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
romporataro. 1									ear				
								ie μοι y	 				
<u>Concentrate</u>													
Fresh	0.2	0.8	0.2	0.9	1.7	2.1	1.7	4.7	0.7	1.3	0.9	1.0	0.9
1.0-Percent Solution ^{3, 4}													
Fresh	0.1	0.1	0.1	0.1	1.1	2.1	1.1	2.5	0.1	1.9	3.3	1.6	1.6
1 Year - Missoula	0.1	0.1	0.1	0.1	1.2	1.6	1.0	2.0	0.1	1.5	2.9	1.6	1.7
1 Year - San Dimas	0.2	0.1	0.1	0.1	1.2	1.9	1.0	2.1	0.1	2.2	2.8	1.3	2.1
0.1-Percent Solution ^{3, 4}													
Fresh	0.1	.01	0.1	0.1	1.6	2.1	1.6	2.7	0.1	1.7	2.0	1.3	1.4
1 Year - Missoula	0.2	0.1	0.1	0.1	1.4	2.3	1.0	1.9	0.1	2.8	2.6	1.9	1.4
1 Year - San Dimas	0.1	0.1	0.1	0.1	1.5	1.8	1.0	2.1	0.1	2.2	2.1	1.6	1.5
Notes:													
Uniform corrosion rates (every	essed in	mils-ne	r-vear)	were de	termine	d by 90-	day wei	aht loss	tests. Values shown a	re the av	verage o	of all	
replicates.	occor iii	pc	, your)			a by 50	day Wo	9.11 1000	tooto. Valdoo onowii a	io ino a	voluge c	, un	
2 Results up to 0.1 mils-per-yea	ar are re	corded a	as 0.1 m	nils-per-y	/ear.								
3 Meets the intergranular corros													-
4 Meets the intergranular corros	-												
g. s.													



Uniform Corrosion ¹ National Foam KnockDown



	20	24-T3 <i>A</i>	Alumin	um		4130	Steel		Yellow Brass	Az	:31B Ma	agnesi	um
	Тс	otal	Pa	rtial	To	tal	Pa	rtial	Partial		otal	_	rtial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
-							m	ils-per-y	ear				
Concentrate													
Fresh	0.6	0.6	0.3	0.4	0.4	0.2	8.0	1.1	0.1	9.0	11.1	4.7	5.7
1.0-Percent Solution ³													
Fresh	0.1	0.1	0.1	0.1	0.6	1.4	1.8	2.9	0.1	1.0	1.8	0.9	1.2
1 Year - Missoula	0.1	0.1	0.1	0.1	0.9	1.9	1.0	2.7	0.1	1.2	1.5	1.1	1.1
1 Year - San Dimas	0.1	0.1	0.1	0.1	0.6	2.1	0.7	2.9	0.1	1.5	1.8	1.5	1.2
0.1-Percent Solution ³													
Fresh	0.1	0.1	0.1	0.1	0.6	1.9	8.0	2.0	0.1	1.3	0.9	8.0	0.6
1 Year - Missoula	0.1	0.1	0.1	0.1	1.0	2.0	0.9	2.2	0.1	1.3	1.5	1.0	1.0
1 Year - San Dimas	0.1	0.1	0.1	0.1	0.8	1.9	0.8	2.4	0.1	1.3	0.9	1.2	0.7
Notes:													
1 Uniform corrosion rates (expreplicates.	ressed ir	n mils-pe	r-year)	were de	termine	d by 90-	day we	ght loss	tests. Values shown a	re the a	verage o	of all	
2 Results up to 0.1 mils-per-ye	ar are re	corded a	as 0.1 m	nils-per-y	/ear.								
3 Meets the intergranular corre	osion req	uirement	ts for al	uminum.									



Uniform Corrosion ¹ FlameOut



	20	24-T3 A	lumin	um		4130	Steel		Yellow Brass	Az	31B M	agnesi	um
	To	tal	Pai	rtial	То	tal	Pai	rtial	Partial	То	tal	Pai	rtial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
							<i>m</i>	ils-per-y	ear				
Concentrate													
Fresh	0.7	1.4	0.7	0.7	8.0	2.5	1.5	4.0	0.8	3.6	4.2	2.8	2.6
1.0-Percent Solution													
Fresh	0.1	0.3	0.2	0.1	0.4	1.7	1.1	1.4	0.1	0.3	1.5	1.5	1.1
1 Year - Missoula	0.4	0.3	0.3	0.1	1.0	1.3	8.0	1.4	0.1	N/A	N/A	N/A	N/A
1 Year - San Dimas	0.6	0.3	0.3	0.1	0.6	1.4	8.0	1.5	0.1	N/A	N/A	N/A	N/A
0.1-Percent Solution													
Fresh	0.5	0.6	0.5	0.3	1.1	1.8	1.1	1.6	0.1	1.6	0.9	1.1	0.7
1 Year - Missoula	0.6	8.0	0.6	0.4	1.0	1.6	0.9	1.5	0.1	N/A	N/A	N/A	N/A
1 Year - San Dimas	0.5	0.6	0.6	0.3	0.9	2.0	8.0	1.5	0.1	N/A	N/A	N/A	N/A

Notes:

¹ Uniform corrosion rates (expressed in mils-per-year) were determined by 90-day weight loss tests. Values shown are the average of all replicates.

² Results up to 0.1 mils-per-year are recorded as 0.1 mils-per-year.



Uniform Corrosion ¹ Angus Hi-Combat A



	20	24-T3 <i>F</i>	Alumin	um		4130	Steel		Yellow Brass	Az	31B M	agnesi	um
	To	tal	Pa	rtial	То	tal	Pa	rtial	Partial	То	tal	Par	rtial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
							<i>m</i>	ils-per-y	/ear				
Concentrate													
Fresh	0.8	2.4	0.2	1.3	0.6	0.5	1.0	2.0	0.1	6.4	5.6	3.8	3.5
1.0-Percent Solution ³													
Fresh	0.1	0.1	0.1	0.1	0.6	1.6	0.8	3.3	0.1	1.5	1.5	1.7	1.1
1 Year - Missoula	0.1	0.1	0.1	0.1	0.7	1.6	0.7	3.4	0.1	N/A	N/A	N/A	N/A
1 Year - San Dimas	0.1	0.1	0.1	0.1	0.4	1.9	0.7	3.0	0.1	N/A	N/A	N/A	N/A
0.1-Percent Solution ³													
Fresh	0.1	0.2	0.1	0.1	0.4	1.7	8.0	2.3	0.1	1.8	2.0	1.0	1.3
1 Year - Missoula	0.1	0.2	0.1	0.1	1.1	1.6	8.0	1.9	0.1	N/A	N/A	N/A	N/A
1 Year - San Dimas	0.1	0.1	0.1	0.1	1.0	1.5	0.6	1.6	0.1	N/A	N/A	N/A	N/A
Notes:													
Uniform corrosion rates (expreplicates.	ressed in	mils-pe	r-year)	were de	termine	d by 90-	day we	ight loss	tests. Values shown a	are the a	verage (of all	
2 Results up to 0.1 mils-per-ye	ear are re	corded a	as 0.1 m	nils-per-y	ear.								
3 Meets the intergranular corre	osion rea	uiremen	ts for all	uminum									-



Uniform Corrosion ¹ Buckeye Platinum Class A



	20	24-T3 <i>A</i>	Alumin	um		4130	Steel		Yellow Brass	Az	31B M	agnesi	um
	To	otal	Pa	rtial	То	tal	Pa	rtial	Partial		tal	_	rtial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
·							m	ils-per-y	ear				
Concentrate													
Fresh	0.6	4.0	0.4	2.5	1.7	2.6	1.3	4.1	0.1	29.5	41.2	18.2	20.3
FIESII	0.0	4.0	0.4	2.5	1.7	2.0	1.5	4.1	0.1	29.5	41.2	10.2	20.3
1.0-Percent Solution ³													
Fresh	0.1	0.1	0.1	0.1	0.5	1.6	0.8	2.2	0.1	1.8	2.2	1.6	1.4
1 Year – Missoula	0.1	0.1	0.1	0.1	0.6	1.5	0.6	2.0	0.1	N/A	N/A	N/A	N/A
1 Year - San Dimas	0.1	0.1	0.1	0.1	0.6	1.2	0.6	2.2	0.1	N/A	N/A	N/A	N/A
0.1-Percent Solution ³													
Fresh	0.1	0.1	0.1	0.1	1.4	2.3	1.2	1.9	0.1	1.1	1.9	0.9	0.9
1 Year – Missoula	0.1	0.1	0.1	0.1	0.6	1.5	0.6	1.5	0.1	N/A	N/A	N/A	N/A
1 Year - San Dimas	0.1	0.1	0.1	0.1	0.5	1.7	0.7	1.6	0.1	N/A	N/A	N/A	N/A
Notes:													
1 Uniform corrosion rates (expreplicates.	ressed ir	mils-pe	r-year)	were de	termine	d by 90-	day we	ight loss	tests. Values shown a	re the a	verage (of all	
2 Results up to 0.1 mils-per-ye	ear are re	corded a	as 0.1 m	nils-per-y	/ear.								
3 Meets the intergranular corre													



Uniform Corrosion ¹ Solberg Fire-Brake 3150A



	20	24-T3 <i>A</i>	lumin	um		4130	Steel		Yellow Brass	Az	31B M	agnesi	um
	To	otal	Pa	rtial	To	tal	Pa	rtial	Partial		tal	_	rtial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
							<i>m</i>	ils-per-y	<i>'ear</i>				
Concentrate													
Fresh	1.8	1.6	1.0	1.1	0.7	1.3	1.0	2.8	0.2	38.4	31.3	22.5	13.8
1.0-Percent Solution ³													
Fresh	0.1	0.1	0.1	0.1	0.3	1.6	0.5	2.4	0.1	3.2	2.5	2.4	1.7
1 Year - Missoula	0.1	0.1	0.1	0.1	0.7	1.3	0.7	1.1	0.1	N/A	N/A	N/A	N/A
1 Year - San Dimas	0.1	0.1	0.1	0.1	0.6	1.1	0.6	1.1	0.1	N/A	N/A	N/A	N/A
0.1-Percent Solution ³													
Fresh	0.1	0.4	0.1	0.2	0.6	1.8	0.7	2.1	0.1	2.6	1.7	1.8	1.3
1 Year - Missoula	0.1	0.1	0.1	0.1	1.2	1.3	0.9	1.5	0.1	N/A	N/A	N/A	N/A
1 Year - San Dimas	0.1	0.2	0.1	0.1	1.2	1.7	0.9	1.4	0.1	N/A	N/A	N/A	N/A
Notes:													
1 Uniform corrosion rates (exp replicates.	ressed ir	n mils-pe	r-year)	were de	termine	d by 90-	day we	ight loss	tests. Values shown a	re the a	verage (of all	
2 Results up to 0.1 mils-per-ye	ar are re	corded a	as 0.1 m	nils-per-y	/ear.								
3 Meets the intergranular corro	sion req	uirement	ts for al	uminum.	·								



Uniform Corrosion ¹ Phos-Chek First Response



	20	24-T3 <i>A</i>	Alumin	um		4130	Steel		Yellow Brass	Az	31B Ma	agnesi	um
	To	tal	Pa	rtial	То	tal	Pai	rtial	Partial	То	tal	Pai	rtial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
_							m	ils-per-y	ear				
Concentrate													
Fresh	0.1	0.2	0.1	0.1	0.6	1.1	0.8	3.5	0.2	0.4	0.6	0.7	0.6
1.0-Percent Solution ^{3, 4}													
Fresh	0.1	0.1	0.1	0.1	1.0	1.4	0.7	2.5	0.1	1.4	2.6	1.1	1.6
1 Year - Missoula	0.2	0.2	0.1	0.1	8.0	1.5	0.7	2.4	0.2	1.2	2.5	1.2	1.6
1 Year - San Dimas	0.1	0.2	0.1	0.1	1.0	1.5	0.7	2.4	0.1	1.1	2.4	1.1	1.5
0.1-Percent Solution ^{3, 4}													
Fresh	0.1	0.1	0.1	0.1	1.1	1.9	0.8	1.6	0.1	1.4	2.1	1.2	1.4
1 Year - Missoula	0.1	0.2	0.1	0.1	1.3	2.0	8.0	1.6	0.1	1.7	1.7	1.3	1.1
1 Year - San Dimas	0.1	0.2	0.1	0.1	1.2	1.8	8.0	1.7	0.1	1.5	2.1	1.3	1.1
Notes:													
1 Uniform corrosion rates (expre	essed in	mils-pe	r-year)	were de	termine	d by 90-	day wei	ight loss	tests. Values shown a	re the av	verage o	of all	
1 replicates.							-	_					
2 Results up to 0.1 mils-per-year	ar are re	corded a	as 0.1 m	nils-per-y	/ear.								
3 Meets the intergranular corros	sion requ	uiremen	ts for al	uminum.									
4 Meets the intergranular corros	sion requ	uiremen	ts for m	agnesiur	m.								
	_												



Uniform Corrosion ¹ Silv-Ex Plus



	20	24 T2 /	\			4420	Ctool		Valley Press	Λ_	24 D M		
	_	24-T3 <i>F</i> otal		um rtial	То	4130 tal		rtial	Yellow Brass Partial		31B Ma tal	_	um tial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
remperature. F	70	120	_		ļ.		_		120 /ear	70 	120	70	120
								ne per y	- Cu.				
0													
Concentrate	0.1	0.1	0.1	0.1	0.5	0.5	1.0	2.2	0.1	4.7	4.6	2.5	3.2
Fresh	0.1	0.1	0.1	0.1	0.5	0.5	1.0	2.2	0.1	4.7	4.0	2.3	3.2
1.0-Percent Solution ^{3, 4}													
Fresh	0.1	0.1	0.1	0.1	0.7	0.9	0.5	2.3	0.1	0.9	2.4	1.0	1.7
1 Year - Missoula	0.1	0.1	0.1	0.1	1.0	1.0	0.6	2.1	0.1	1.0	2.5	0.9	1.7
1 Year - San Dimas	0.1	0.1	0.1	0.1	0.7	0.9	0.5	2.2	0.1	1.1	2.2	1.0	1.6
0.1-Percent Solution ^{3, 4}													
Fresh	0.1	0.1	0.1	0.1	1.1	1.6	1.0	1.6	0.1	1.1	1.5	1.0	0.7
1 Year - Missoula	0.1	0.1	0.1	0.1	1.2	1.5	1.0	1.5	0.1	1.4	1.5	1.1	0.9
1 Year - San Dimas	0.1	0.1	0.1	0.1	1.1	1.5	0.8	1.5	0.1	1.0	1.6	1.0	1.0
Notes:													
1 Uniform corrosion rates (expr	essed ir	mils-pe	r-year)	were de	termine	d by 90-	day wei	ght loss	tests. Values shown a	re the a	verage o	of all	
2 Results up to 0.1 mils-per-yea	ar are re	corded a	as 0.1 m	nils-per-y	/ear.								
3 Meets the intergranular corres													
4 Meets the intergranular corros													
g a men control				<u> </u>									



Uniform Corrosion ¹ 1% Bushmaster



	20	24-T3 <i>A</i>	Alumin	um		4130	Steel		Yellow Brass	Az	31B Ma	agnesi	um
	To	otal	Pa	rtial	То	tal	Pa	rtial	Partial	То	tal	Pa	rtial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
							m	ils-per-y	/ear				
Concentrate													
Fresh	0.3	1.6	0.2	8.0	1.8	3.1	1.3	2.4	0.1	14.2	20.0	8.6	10.0
1.0-Percent Solution ³													
Fresh	0.1	0.1	0.1	0.1	0.1	0.9	0.5	0.7	0.1	1.6	2.1	1.0	1.2
1 Year - Missoula	0.1	0.1	0.1	0.1	0.7	1.3	0.4	1.3	0.1	2.2	2.2	1.5	1.4
1 Year - San Dimas	0.1	0.1	0.1	0.1	0.4	0.9	0.3	1.0	0.1	1.8	2.2	1.3	1.2
0.1-Percent Solution ³													
Fresh	0.1	0.1	0.1	0.1	0.4	1.0	0.4	1.0	0.1	1.7	2.1	0.9	1.3
1 Year - Missoula	0.1	0.1	0.1	0.1	0.7	1.3	0.7	1.2	0.1	1.2	8.0	0.9	0.6
1 Year - San Dimas	0.1	0.1	0.1	0.1	0.7	1.4	0.7	1.4	0.1	1.3	1.3	1.0	0.8
Notes:													
1 Uniform corrosion rates (ex replicates.	oressed ir	mils-pe	er-year)	were de	termine	d by 90-	day we	ight loss	tests. Values shown a	are the a	verage c	of all	
2 Results up to 0.1 mils-per-y	ear are re	corded a	as 0.1 m	nils-per-y	/ear.								
3 Meets the intergranular corr	osion req	uiremen	ts for al	uminum.	i								



Uniform Corrosion ¹ Phos-Chek WD881A



	20	24 T2 /	\ li.o			4420	Ctool		Yellow Brass	Λ_	24 D M		
	2024-T3 Aluminum Total Partial				To	4130 tal	Steel	rtial	Partial Total		31B Ma	_	um rtial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
remperature. F		120	_		1		_		120 /ea <i>r</i>	70 	120	70	120
								no per y	Cui				
Concentrate	0.4	0.0	0.4	0.0	0.4			0.0	0.0	0.0	0.5	0.4	0.0
Fresh	0.1	0.2	0.1	0.3	0.4	1.1	1.1	2.8	0.8	0.6	0.5	0.4	0.6
4 O Danas at Oakstian 3 4													
1.0-Percent Solution ^{3, 4}	0.1	0.1	0.1	0.1	1.0	1 1	0.0	2.5	0.1	1.1	2.6	0.7	1.8
Fresh		_		-	1.0	1.4	0.8	_	0.1		_	_	_
1 Year - Missoula	0.1	0.1	0.1	0.1	0.8	1.5	0.6	3.1	0.1	0.7	2.8	0.8	1.8
1 Year - San Dimas	0.1	0.1	0.1	0.1	0.8	1.5	0.6	2.5	U. I	0.8	2.5	0.5	1.4
0.1-Percent Solution ^{3, 4}													
Fresh	0.1	0.1	0.1	0.1	0.9	1.6	0.6	2.2	0.1	1.3	2.3	0.9	1.2
1 Year - Missoula	0.1	0.1	0.1	0.1	1.1	1.5	0.7	1.9	0.1	1.1	2.3	0.9	1.3
1 Year - San Dimas	0.1	0.1	0.1	0.1	1.0	1.6	0.7	2.0	0.1	1.1	2.9	0.9	1.3
1 Teal - Sall Dillias	0.2	0.1	0.1	0.1	1.0	1.0	0.7	2.0	0.1	1.1	2.5	0.5	
Notes:													
1 Uniform corrosion rates (expr replicates.	essed ir	mils-pe	r-year)	were de	termine	d by 90-	day wei	ight loss	tests. Values shown a	re the a	verage o	of all	
2 Results up to 0.1 mils-per-year	ar are re	corded a	as 0.1 m	nils-per-y	ear.								
3 Meets the intergranular corro	sion req	uiremen	ts for al	uminum.	•								
4 Meets the intergranular corro	sion req	uiremen	ts for m	agnesiui	m.								
	•												



Uniform Corrosion ¹ Fomtec Enviro Class A



	20	24-T3 <i>A</i>	Alumin	um		4130	Steel		Yellow Brass Az31B Magne				um
	Total		Pai	rtial	To	tal		rtial	Partial	Total		_	rtial
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120
							<i>m</i>	ils-per-y	/ear				
Concentrate													
Fresh	1.4	2.6	8.0	2.8	1.2	4.0	2.0	3.7	0.8	4.4	5.5	2.8	3.5
1.0-Percent Solution ³									0.4				
Fresh	0.1	0.2	0.1	0.1	1.2	1.6	8.0	3.1	0.1	1.5	1.5	1.3	1.2
1 Year - Missoula	0.1	0.1	0.1	0.1	8.0	1.7	0.5	2.4	0.1	0.7	1.6	1.0	1.0
1 Year - San Dimas	0.1	0.4	0.1	0.1	1.3	1.7	0.6	2.2	0.1	1.0	1.4	1.2	1.1
0.1-Percent Solution ³													
Fresh	0.1	0.6	0.1	1.3	0.2	8.0	0.3	0.6	1.1	0.6	2.1	0.4	1.1
1 Year - Missoula	0.2	0.3	0.1	0.1	1.2	2.0	1.0	1.8	0.1	1.5	1.5	0.9	0.8
1 Year - San Dimas	0.3	0.5	0.4	0.2	1.2	1.9	1.0	1.8	0.1	1.2	1.6	0.9	0.9
Notes:													
1 Uniform corrosion rates (expression replicates.	ressed in	mils-pe	r-year)	were de	termine	d by 90-	day we	ight loss	tests. Values shown a	re the a	verage o	of all	
2 Results up to 0.1 mils-per-ye	ar are re	corded a	as 0.1 m	nils-per-y	ear.								
3 Meets the intergranular corro													



Uniform Corrosion ¹ Bio-Ex Ecopol-F



	20	24-T3 <i>A</i>	Mumin	um		<i>1</i> 130	Steel		Yellow Brass	Az31B Magnesium				
	_	24-13 <i>F</i> otal		rtial	To	tal		rtial	Partial	Total		_	rtial	
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120	
Tomporatare.							_		rear					
								, ,						
0														
Concentrate	0.1	0.3	0.1	0.5	0.3	1.0	1.0	3.3	0.1	2.0	4.5	2.5	2.2	
Fresh	0.1	0.3	0.1	0.5	0.3	1.0	1.8	3.3	0.1	3.8	4.5	2.5	3.2	
1.0-Percent Solution ^{3,4}														
Fresh	0.1	0.4	0.1	0.1	1.0	1.8	1.0	2.5	0.1	0.9	1.8	1.1	1.4	
1 Year - Missoula	0.1	0.3	0.1	0.1	8.0	1.8	8.0	2.6	0.1	1.0	3.0	1.4	1.6	
1 Year - San Dimas	0.1	0.3	0.1	0.1	0.7	1.9	1.0	2.5	0.1	1.0	2.3	1.3	1.5	
0.1-Percent Solution ^{3,4}														
Fresh	0.1	0.6	0.1	0.1	1.4	2.0	1.0	1.7	0.1	0.7	1.4	1.1	0.9	
1 Year - Missoula	0.1	0.6	0.1	0.1	1.4	2.2	0.9	1.8	0.1	1.0	1.2	1.0	0.9	
1 Year - San Dimas	0.1	0.6	0.1	0.2	1.5	2.1	1.1	1.8	0.1	1.2	1.3	1.2	0.9	
Notes:														
Uniform corrosion rates (evo	ressed ir	mils-pe	er-vear)	were de	termine	d bv 90-	dav wei	iaht loss	tests. Values shown a	re the a	verage o	of all		
1 replicates.			, , , , , ,			,	,	9						
2 Results up to 0.1 mils-per-ye	ar are re	corded a	as 0.1 n	nils-per-y	ear.									
3 Meets the intergranular corro	sion req	uiremen	ts for al	uminum.										
4 Meets the intergranular corro	sion req	uiremen	ts for m	agnesiu	m.									



Uniform Corrosion ¹ SparkBarrier



	20	24-T3 A	Alumin	um		4130	Steel		Yellow Brass	Az31B Magnesium				
	Total			Partial		tal		rtial	Partial	Total		_	rtial	
Temperature: °F	70	120	70	120	70	120	70	120	120	70	120	70	120	
•							m	ils-per-y	ear					
Concentrate														
Fresh	0.2	0.5	0.3	1.9	0.2	0.4	1.1	3.1	0.3	3.3	1.8	2.6	3.0	
110011														
1.0-Percent Solution ³														
Fresh	0.6	0.5	<0.1	0.2	0.7	1.5	0.6	2.6	0.1	1.0	2.7	0.7	2.5	
1 Year - Missoula	0.1	0.1	0.1	<0.1	0.7	1.6	0.7	1.6	0.1	-	-	-	-	
1 Year - San Dimas	<0.1	<0.1	0.2	<0.1	0.4	1.2	8.0	1.9	0.1	-	-	-	-	
0.1-Percent Solution ³														
Fresh	0.2	0.2	0.2	<0.1	8.0	1.6	0.6	1.9	0.1	1.1	5.1	1.2	3.2	
1 Year - Missoula	0.1	0.1	0.1	<0.1	1.4	2.2	0.9	1.8	<0.1	-	-	-	-	
1 Year - San Dimas	0.2	0.2	<0.1	<0.1	0.9	1.5	0.6	1.6	<0.1	-	-	-	-	
Notes:														
Uniform corrosion rates (eyo	essed in	mils-pe	er-year)	were de	termine	d by 90-	day wei	ight loss	tests. Values shown a	re the a	verage o	of all		
1 replicates.		<u>'</u>	, ,											
2 Results up to 0.1 mils-per-ye	ar are re	corded a	as 0.1 m	nils-per-y	/ear.									
3 Meets the intergranular corro	sion req	uiremen	ts for all	uminum.			·	·		·				
4 Meets the intergranular corro	sion req	uiremen	ts for ma	agnesiui	m.									