SEVEN YEARS TROPICAL EXPOSURE OF FINISHING SYSTEMS FOR ALUMINUM AND MAGNESIUM

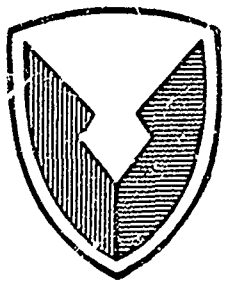
Melvin H. Sandler

Coating and Chemical Laboratory

Prepared for:

Army Materiel Command

November 1972



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CCL REPORT NO. 319

PROGRESS REPORT

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BY

MELVIN H. SANDLER

NOVEMBER 1972

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U. S. ARMY
MOBILITY EQUIPMENT RESEARCH AND DEVELOPMENT CENTER
COATING AND CHEMICAL LABORATORY
ABERDEEN PROVING GROUND
MARYLAND 21005

52

UNCLASSIFIED

Security Classification

DOCUMENT CONTROL DATA - R & D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author)
U.S. Army Mobility Equipment Research & Development Center, Coating & Chemical Laboratory
Aberdeen Proving Ground, MD 21005

2a. REPORT SECURITY CLASSIFICATION
Unclassified

2b. GROUP

3. REPORT TITLE
SEVEN YEARS TROPICAL EXPOSURE OF FINISHING SYSTEMS FOR ALUMINUM AND MAGNESIUM

4. DESCRIPTIVE NOTES (Type of report and inclusive dates)
Progress Report

5. AUTHOR(S) (First name, middle initial, last name)
Melvin H. Sandler

6. REPORT DATE	7a. TOTAL NO. OF PAGES	7b. NO. OF REFS
November 1972	53	2

8a. CONTRACT OR GRANT NO.	9a. ORIGINATOR'S REPORT NUMBER(S)
AMCMS Code No. 502E.11.29500	
b. PROJECT NO. 1T062105A329	CCL #319
c.	9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)
d.	

10. DISTRIBUTION STATEMENT
Approved for public release; distribution unlimited

11. SUPPLEMENTARY NOTES	12. SPONSORING MILITARY ACTIVITY
	U. S. Army Materiel Command Washington, D. C. 20315

13. ABSTRACT

This report covers a study of the corrosion resistance provided by specification finishing systems to aluminum and magnesium exposed in a tropical environment. The systems include chemical, anodic, and wash primer metal pretreatments; primers specified for these metals in Military Standard No. 171 "Finishing of Metal and Wood Surfaces"; several other specification primers that have been used for these metals; and an experimental epoxy primer. Finish coats included specification lustreless, semi-gloss, and gloss alkyd resin enamels and a gloss polyamide-epoxy enamel. Seven years exposure, shows finishing systems are available for the protection of aluminum and magnesium.

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This report covers a study of the corrosion resistance provided by specification finishing systems to aluminum and magnesium exposed in a tropical environment. The systems include chemical, anodic, and wash primer metal pretreatments; primers specified for these metals in Military Standard No. 171 "Finishing of Metal and Wood Surfaces"; several other specification primers that have been used for these metals; and an experimental epoxy primer. Finish coats included specification lustreless, semi-gloss, and gloss alkyd resin enamels and a gloss polyamide-epoxy enamel. Seven years exposure, shows finishing systems are available for the protection of aluminum and magnesium.

TABLE OF CONTENTS

I. INTRODUCTION

In December 1964 the Coating and Chemical Laboratory initiated a tropical exposure program on specification finishing systems for aluminum and magnesium to determine where coating improvements are needed and to provide user activities with information on the most effective systems available for the protection of their equipment. The finishing systems included chemical, anodic, and wash primer surface treatments; primers specified in MIL-STD-171 (1) for these metals; several other specification primers that have also been used for these metals; and an experimental epoxy primer. Finish coats were specification lustreless, semigloss, and gloss alkyd resin enamels and a gloss polyamide-epoxy enamel. In September 1967 CCL Report No. 233 (2) was issued covering 26 months exposure. This report is a continuation of that program.

II. DETAILS OF TEST

The surface preparation and finishes used are listed in Tables I and II. The 2024 aluminum and AZ31 magnesium test panels were given the applicable pretreatments and then coated with the primers and finish coats. Wash primer MIL-P-15328 was applied to a dry film thickness between 0.2 and 0.3 mil; zinc chromate primers MIL-P-8585 and TT-P-666 at 0.4-0.6 mil. All other primers and finish coats were applied to 0.9-1.1 mils dry film per coat. The panels were exposed at the breakwater and open field sites at Fort Sherman, Panama Canal Zone. (For more detailed information on preparation of the test panels and environmental conditions, see reference 2.)

The panels were examined after periodic intervals ranging from 6-9 months for the first 5 years and yearly thereafter and rated from 5 to 0 in accordance with Table III and IV. In general, ratings of 5 and 4 are considered to provide satisfactory protection. It is realized that panel evaluation cannot always be clearly defined by numerical rating, particularly when the condition of the specimen falls at the border of two possible ratings. For this reason in most cases the rating of a specimen was not considered complete until it received the same or lower rating for 2 consecutive rating periods. This is of particular concern in ratings of 4 and 3 since the former is considered satisfactory and the latter unsatisfactory. Therefore, until two consecutive ratings were the same or lower the specimen was considered to have the higher rating. A compilation of the ratings for the seven year exposure period is covered in Tables V, VI, VII, and VIII.

III. DISCUSSION

On aluminum, the anodic pretreatment MIL-A-8625 and the chemical film pretreatment MIL-C-5541 are showing excellent protection. The remaining surface preparations were much less effective. Most failures were the result of blistering of the film rather than corrosion. With regard to primers for aluminum, MIL-P-52192 epoxy primer appears to be

the least effective except over anodize where it is comparable to the others and still showing good protection. Over other surface preparations it showed faster degradation at the breakwater than the other primers. Tables IX and X tabulate the number of months exposure at each site before one or more condition dropped below a rating of 4 and Table XI lists those systems that maintained a 4 or better rating after 7 years.

With magnesium, severity of failure between sites was much more pronounced than with aluminum. Failures at the breakwater were far more severe and were primarily by corrosion at the score, and in some instances on the panel surface, whereas those in the rain forest were primarily film blistering on the panel surface. Differences noted between systems in the rain forest are much less than those at the breakwater. The anodic pretreatments MIL-M-45202, Types I and II and the dichromate MIL-M-3171 are the most effective after seven years. Galvanic anodize, MIL-M-3171 Type I, was next most effective followed by chrome pickle and sealed chrome pickle MIL-M-3171 Types I and II respectively. Wash primer, using 1/2 acid content to minimize gassing when applied over magnesium, was ineffective at the breakwater. It is effective with some of the systems in the rain forest. Subsequent to this a series exposed to determine if full acid content would improve performance, showed basically the same results.

Although only one of each set of magnesium panels was scored at the breakwater because of the concern over the reactivity of magnesium in a salt laden atmosphere, the data on score condition is still considered meaningful since the development of edge corrosion on the panels showing signs of failure very closely correlated with that of the scored panel. For example where a panel had 1/8 inch corrosion at the score the unscored panels in most cases exhibited 1/8 inch corrosion from the edge. With regard to primers, MIL-P-52192 epoxy primer was again the least effective at the breakwater except over the dichromate treatment where it is comparable. In the rain forest, except for the MIL-P-23276 which blistered over all pretreatments at the 12 month inspection, the differences are not as pronounced. Tables XII and XIII tabulate the number of months exposure at each site before one or more rating condition dropped below 4 and Table XIV lists those systems rated 4 or better at both sites after 7 years.

The data obtained in this study to date shows that finishing systems are available to protect aluminum and magnesium from corrosion. It is planned to continue annual ratings of the remaining test panels and to issue a further progress report after 10 years exposure.

IV. REFERENCES

1. Military Standard 171, "Finishing of Metal and Wood Surfaces".

2. Sandler, Melvin H. and Cohen, M., CCL Report No. 233 "Tropical Exposure of Finishing Systems for Aluminum and Magnesium", September 1967.

APPENDIX A

LEGEND FOR TABLES V - VIII

C/B	- Corrosion and/or Blistering
U	- Undercutting
Sur	- Surface Condition
R 6, 12, etc.	- Removed after noted number of months
SR 6, 12, etc.	- Scored panels only removed after noted number of months

TABLE I

SURFACE PREPARATION - FINISHES ON ALUMINUM

Surface Preparation	
Solvent Clean	1:1 by volume aliphatic naphtha (TT-N-95) ethylene glycol monoethyl ether (TT-E-781)
MIL-M-10578	Metal Conditioner and Rust Remover (Phosphoric Acid Base)
MIL-C-5541	Chemical Films and Chemical Film Materials for Aluminum and Aluminum Alloys, Type II, Grade C, Class 2.
MIL-A-8625	Anodic Coatings for Aluminum and Aluminum Alloys (Type I, Class 1)
MIL-P-15328	Primer Pretreatment (Formula 117 for Metals)
Primers	
MIL-P-8585	Primer Coating, Low Moisture Sensitivity
TT-P-666	Primer Coating, Zinc Yellow (Zinc Chromate) for Aluminum Surfaces
MIL-P-15930	Primer, Vinyl-Zinc Chromate Type
MIL-P-52192	Primer, Coating, Epoxy
TT-P-664	Primer Coating, Synthetic, Rust Inhibiting, Lacquer Resisting
MIL-P-11414	Primer Coating, Lacquer, Rust Inhibiting
MIL-P-23377	Primer Coating, Epoxy Polyamide, Chemical and Solvent Resistant
TT-E-435	Enamel, Semi-gloss, Rust Inhibiting
CCL 496-21	Experimental Epoxy
Finish Coats	
TT-E-489	Enamel, Alkyd, Gloss (for Exterior and Interior Surfaces)
TT-E-527	Enamel, Alkyd, Lustreless
TT-E-529	Enamel, Alkyd, Semi-gloss

TABLE II

SURFACE PREPARATION - FINISHES ON MAGNESIUM

Surface Preparation	
MIL-M-45202	"Magnesium Alloys, Anodic Treatment of" Type I Class C, Light Green Coating Type II Class D, Heavy Coating, Dark Green
MIL-M-3171	"Magnesium Alloy, Processes for Pretreatment and Prevention of Corrosion on" Type I Chrome Pickle Treatment Type II Sealed Chrome Pickle Type III Dichromate Treatment Type IV Galvanic Anodizing Treatment
MIL-P-15328	Primer Pretreatment (Formula 117 for Metals)
Primers	
MIL-P-8585	Primer Coating, Low Moisture Sensitivity
MIL-P-15930	Primer, Vinyl-Zinc Chromate Type
MIL-P-52192	Primer Coating, Epoxy
MIL-P-27316	Primer Coating, Epoxy, for Metal Surfaces
MIL-P-23377	Primer Coating, Epoxy Polyamide, Chemical and Solvent Resistant
CCL 496-21	Experimental Epoxy Primer
Finish Coats	
TT-E-489	Enamel, Alkyd, Gloss (For Exterior and Interior Surfaces)
TT-E-527	Enamel, Alkyd, Lustreless
TT-E-529	Enamel, Alkyd, Semi-Gloss
MIL-C-22750	Coating, Epoxy-Polyamide

TABLE III

SCORE

I. Score Condition

Rating	Corrosion and/or Blistering
5	None - 1/32 inch
4	1/32 - 1/16 inch
3	1/16 - 1/8 inch
2	1/8 - 3/16 inch
1	3/16 - 1/4 inch
0	> 1/4 inch

II. Undercutting at Score

Rating	
5	None-intermittent
4	Continuous to 1/16 inch
3	Continuous to 1/16 - 1/8 inch
2	Continuous to 1/8 - 3/16 inch
1	Continuous to 3/16 - 1/4 inch
0	Continuous > 1/4 inch

TABLE IV

SURFACE CONDITION*

Rating	A. Corrosion Alone (ASTM D 610)
5	None
4	ASTM Photo No. 10, Type 1
3	ASTM Photo No. 9, Type 1
2	ASTM Photo No. 8, Type 1
1	ASTM Photo No. 7, Type 1
0	ASTM Photo No. 6, Type 1

Rating	B. Corrosion Accompanied by Blistering (ASTM D 610)
5	None
4	Trace, less than 5 defects on 4 x 12 inch panel
3	ASTM Photo No. 8, Type 2
2	ASTM Photo No. 7, Type 2
1	ASTM Photo No. 6, Type 2
0	ASTM Photo No. 4, Type 2 or worse

Rating	C. Blistering Alone (ASTM D 714)
5	None
4	Trace ASTM Blister Size 2 on 4 x 12 inch panel - 2 max. ASTM Blister Size 4 on 4 x 12 inch panel - 4 max. ASTM Blister Size 6 on 4 x 12 inch panel - 6 max. ASTM Blister Size 8 on 4 x 12 inch panel - 8 max.
3	ASTM Few - Record blister size
2	ASTM Medium - Record blister size
1	ASTM Med-Dense - Record blister size
0	ASTM Dense - Record blister size

*Select applicable condition.

TABLE V

ALUMINUM - BREAKWATER

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
1	8585	529	6	5	5	C1-6	5	5	5	5	5	5	5	5	5	5	5	5
			12	4	4	C1-8	5	5	5	5	5	5	5	5	5	5	5	5
			19		R 12		4	4	5	5	5	5	4	4	5	5	5	5
			26	-	-	-	3	3	5	4	4	5	4	4	5	4	4	5
			33	-	-	-	3	3	5	4	4	5	5	5	5	4	4	5
			42	-	-	-	1	1	5	5	5	5	5	5	5	4	4	5
			48	-	-	-	0	0	5	5	5	5	5	5	5	5	5	5
			54	-	-	-		R 47		5	5	5	5	5	5	5	5	5
			60	-	-	-	-	-	-	5	5	5	5	5	5	5	5	5
			72	-	-	-	-	-	-	5	5	5	5	5	5	4	4	5
			84	-	-	-	-	-	-	5	5	5	5	5	5	5	5	5
2	8585	527	6	5	5	C1-6	5	5	5	5	5	5	5	5	5	5	5	5
			12	4	4	C1-8	5	5	5	5	5	5	5	5	5	5	5	5
			19		R 12		5	5	5	5	5	5	5	5	5	5	5	5
			26	-	-	-	5	5	5	5	5	5	5	5	5	3	3	5
			33	-	-	-	5	5	5	5	5	B4	5	5	5	4	4	5
			42	-	-	-	5	5	5	5	5	5	5	5	5	0	0	5
			48	-	-	-	5	5	5	5	5	5	5	5	5		R 42	
			54	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			60	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			72	-	-	-	4	4	5	5	5	5	5	5	5	-	-	-
			84	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-

TABLE V - (CON'T)

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Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
3	8585	489	6	5	5	C0-6	5	5	5	5	5	5	5	5	5	5	5	C3-8
			12	4	4	C1-8	5	5	5	5	5	5	5	5	5	5	5	C2-8
			19		R 12		5	5	5	5	5	5	5	5	5		R 12	
			26	-	-	-	4	4	5	4	4	5	5	5	5	-	-	-
			33	-	-	-	4	4	5	5	5	5	5	5	5	-	-	-
			42	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			48	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			54	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			60	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			72	-	-	-	2	2	5	5	5	5	5	5	5	-	-	-
			84	-	-	-	3	3	5	5	5	5	5	5	5	-	-	-
5	666	529	6	5	5	C2-8	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5
			19	3	3	5	0	0	5	5	5	5	5	5	5	3	3	5
			26	0	0	5	0	0	5	4	4	5	4	4	5	3	3	5
			33		R 26			R 26		5	5	5	5	5	5	2	2	5
			42	-	-	-	-	-	-	5	5	5	5	5	5		R 33	
			48	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			54	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			60	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			72	-	-	-	-	-	-	4	4	5	4	4	5	-	-	-
			84	-	-	-	-	-	-	5	5	5	5		5	-	-	-

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ALUMINUM - BREAKWATER

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	0	0	5	0	0	5	5	5	5	5	5	5	4	4	5
			26	0	0	5	0	0	5	4	4	5	4	4	5	3	3	5
			33		R 26			R 26		4	4	5	4	4	5	3	3	5
7	15930	529	42	-	-	-	-	-	-	4	4	5	5	5	5	3	3	5
			48	-	-	-	-	-	-	5	5	5	5	5	5	2	2	5
			54	-	-	-	-	-	-	4	4	5	5	5	5		R 47	
			60	-	-	-	-	-	-	5	5	5	5	5	5	-		-
			72	-	-	-	-	-	-	4	4	5	4	4	5	-	-	-
			84	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	0	0	5	5	4	5	5	5	5	5	5	5	5	5	5
			26	0	0	5	5	5	5	4	4	5	4	4	5	3	3	5
			33		R 26		5	5	5	4	4	5	5	5	5	4	4	5
8	15930	527	42	-	-	-	5	5	5	5	5	5	5	5	5	4	4	5
			48	-	-	-	5	5	BO	5	5	5	5	5	5	3	3	5
			54	-	-	-		R 47		4	4	5	5	5	5	4	4	5
			60	-	-	-	-	-	-	4	4	5	5	5	5	3	3	5
			72	-	-	-	-	-	-	4	4	5	5	5	5	2	2	5
			84	-	-	-	-	-	-	4	4	5	5	5	5		R 72	

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ALUMINUM - BREAKWATER

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
			6	5	5	C4-8	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5
			19	1	1	5	1	1	5	5	5	5	5	5	5	2	2	5
			26	0	0	5		R 19		4	4	5	4	4	5	2	2	5
			33		R 26		-	-	-	4	4	5	5	5	5		R 26	
9	15930	489	42	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			48	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			54	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			60	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			72	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			84	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			6	0	0	5	3	3	5	3	3	5	5	5	5	2	2	5
			12	0	0	5	0	0	5	2	2	5	5	5	5	0	0	5
			19		R 12			R 12		2	2	5	5	5	5		R 12	
			26	-	-	-	-	-	-	0	0	5	4	4	5	-	-	-
			33	-	-	-	-	-	-		R 26		5	5	5	-	-	-
10	52192	529	42	-	-	-	-	-	-	-	-	-	4	4	5	-	-	-
			48	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-
			54	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-
			60	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-
			72	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-
			84	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-

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ALUMINUM - BREAKWATER

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
			6	0	0	5	0	0	5	5	5	5	5	5	5	5	5	5
			12	0	0	5	0	0	5	5	5	5	5	5	5	5	5	5
			19		R 12		0	0	5	3	3	5	5	5	5	0	0	5
			26	-	-	-		R 19		3	3	5	4	4	5	0	0	5
			33	-	-	-	-	-	-		R 26		5	5	5		R 26	
11	52192	527	42	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-
			48	-	-	-	-	-	-	-	-	-	4	4	5	-	-	-
			54	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-
			60	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-
			72	-	-	-	-	-	-	-	-	-	4	4	5	-	-	-
			84	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-
			6	2	2	5	0	0	5	4	4	5	5	5	5	5	5	5
			12	0	0	5	0	0	5	1	1	5	5	5	5	0	0	5
			19		R 12			R 12		2	2	5	5	5	5		R 12	
			26	-	-	-	-	-	-	1	1	5	4	4	5	-	-	-
			33	-	-	-	-	-	-		R 26		5	5	5	-	-	-
12	52192	489	42	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-
			48	-	-	-	-	-	-	-	-	-	4	4	5	-	-	-
			54	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-
			60	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-
			72	-	-	-	-	-	-	-	-	-	4	4	5	-	-	-
			84	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-

TABLE V - (CON'T)

ALUMINUM - BREAKWATER

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	1	1	5	0	0	5	5	5	5	5	5	5	1	1	5
			19	0	0	5		R 12		4	4	5	4	4	5	1	1	5
			26	0	0	5	-	-	-	4	4	5	4	4	5	0	0	5
			33	0	0	B0	-	-	-	4	4	5	5	5	5	0	0	5
13	Exp Epoxy	529	42		R 33		-	-	-	5	5	5	5	5	5		R 33	
			48	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			54	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			60	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			72	-	-	-	-	-	-	3	3	5	5	5	5	-	-	-
			84	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			6	5	5	C2-4	5	5	5	5	5	5	5	5	5	5	5	5
			12	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	0	0	B3	2	2	5	4	4	5	4	4	5	0	0	5
			26		R 19		3	3	5	4	4	5	4	4	5	0	0	5
			33	-	-	-	3	3	5	4	4	5	5	5	5		R 26	
14	664	529	42	-	-	-	3	3	5	5	5	5	5	5	5	-	-	-
			48	-	-	-	2	2	5	5	5	5	5	5	5	-	-	-
			54	-	-	-		R 47		3	3	5	5	5	5	-	-	-
			60	-	-	-	-	-	-		R 54		5	5	5	-	-	-
			72	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-
			84	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-

TABLE V - (CON'T)

ALUMINUM - BREAKWATER

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
15	11414	529	6	5	5	C2-4	5	5	5	5	5	5	5	5	5	5	5	5
			12	0	0	C2-4	0	0	5	5	5	5	5	5	5	2	2	5
			19		R 12			R 12		4	4	5	4	4	5	0	0	5
			26	-	-	-	-	-	-	3	3	5	4	4	5	0	0	5
			33	-	-	-	-	-	-	3	3	5	3	3	5		R 26	
			42	-	-	-	-	-	-	4	4	5	2	2	5	-	-	-
			48	-	-	-	-	-	-	4	4	5	2	2	5	-	-	-
			54	-	-	-	-	-	-	4	4	5		R 48		-	-	-
			60	-	-	-	-	-	-	4	4	5	-	-	-	-	-	-
			72	-	-	-	-	-	-	2	2	5	-	-	-	-	-	-
			84	-	-	-	-	-	-	3	3	5	-	-	-	-	-	-
16	27316	529	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5
			19	5	5	5	5	5	5	5	5	5	5	5	5	4	3	5
			26	4	4	5	4	4	5	4	4	5	4	4	5	0	0	5
			33	5	5	5	5	5	5	5	5	5	5	5	5		R 26	
			42	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-
			48	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-
			54	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-
			60	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-
			72	5	5	5	4	4	5	4	4	5	5	5	5	-	-	-
			84	5	5	5	5	5		5	5	5	5	5	5	-	-	-

TABLE V - (CON'T)

ALUMINUM - BREAKWATER

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	0	0	5	0	0	5	5	5	5	5	5	5	0	0	5
			19		R 12			R 12		4	4	5	4	4	5	0	0	5
			26	-	-	-	-	-	-	4	4	5	4	4	5	0	0	5
			33	-	-	-	-	-	-	3	3	5	5	5	5		R 26	
17	23377	529	42	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			48	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			54	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			60	-	-	-	-	-	-	3	3	5	5	5	5	-	-	
			72	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			84	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			6	2	2	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	0	0	5	1	1	5	5	5	5	4	4	5	5	5	5
			19	0	0	5	0	0	5	4	4	5	3	3	5	4	4	5
			26		R 19			R 19		4	4	5	0	0	5	2	2	B4
			33	-	-	-	-	-	-	4	4	5	1	1	5		R 26	
18	485	529	42	-	-	-	-	-	-	5	5	5		R 33		-	-	-
			48	-	-	-	-	-	-	4	4	5	-	-	-	-	-	
			54	-	-	-	-	-	-	5	5	5		-	-	-	-	-
			60	-	-	-	-	-	-	5	5	5	-	-	-	-	-	-
			72	-	-	-	-	-	-	5	5	5	-	-	-	-	-	-
			84	-	-	-	-	-	-	5	5	5	-	-	-	-	-	-

TABLE V:

ALUMINUM - RAIN FOREST

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.
			6	5	5	C1-6	5	5	5	5	5	5	5	5	5	5	5	C2-8
			12		R 6		5	5	5	5	5	5	5	5	5	5	5	C2-6
			19	-	-	-	5	5	5	5	5	5	5	5	5		R 12	
			26	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			33	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
1	8585	529	42	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			48	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			54	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			60	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			72	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			84	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			6	5	5	C1-6	5	5	5	5	5	5	5	5	5	5	5	C2-8
			12		R 6		5	5	5	5	5	5	5	5	5	5	5	C2-6
			19	-	-	-	5	5	5	5	5	5	5	5	5		R 12	
			26	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			33	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
2	8585	527	42	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			48	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			54	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			60	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			72	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			84	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-

TABLE VI - (CON'T)

ALUMINUM - RAIN FOREST

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
			6	5	5	C1-6	5	5	5	5	5	5	5	5	5	5	5	C2-8
			12		R 6		5	5	5	5	5	5	5	5	5	5	5	C2-6
			19	-	-	-	5	5	5	5	5	5	5	5	5		R 12	
			26	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			33	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
3	8585	489	42	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			48	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			54	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			60	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			72	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			84	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			6	5	5	C1-8	5	5	5	5	5	5	5	5	5	5	5	5
			12		R 6		5	5	5	5	5	5	5	5	5	5	5	5
			19	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			26	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			33	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
5	666	529	42	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			48	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			54	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			60	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			72	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			84	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5

TABLE VI - (CON'T)

ALUMINUM - RAIN FOREST

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
7	15930	529	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			26	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			33	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			42	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			48	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			54	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			60	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5
			72	4	4	5	4	4	5	5	5	5	5	5	5	3	3	5
			84	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
8	15930	527	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5
			26	5	5	5	4	4	5	4	4	5	5	5	5	5	5	5
			33	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5
			42	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			48	5	5	5	0	0	5	5	5	5	5	5	5	5	5	5
			54	5	5	5	0	0	5	5	5	5	5	5	5	5	5	5
			60	5	5	CO-8	0	0	5	5	5	5	5	5	5	5	5	5
			72		R 60			R 60		5	5	5	5	5	5	4	4	5
			84	-	-	-	-	-	-	5	5	5	5	5	5	5	5	5

TABLE VI - (CON'T)
ALUMINUM - RAIN FOREST

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	4	4	5	3	3	5	5	5	5	5	5	5	5	5	5
			26	3	3	C2-8	0	0	5	4	4	5	5	5	5	4	4	5
			33	5	5	5		R 33		5	5	5	5	5	5	5	5	5
9	15930	489	42	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5
			48	0	0	5	-	-	-	5	5	5	5	5	5	5	5	5
			54	3	3	5	-	-	-	5	5	5	5	5	5	5	5	5
			60	2	2	5	-	-	-	5	5	5	5	5	5	5	5	5
			72		R 60		-	-	-	5	5	5	5	5	5	4	4	5
			84	-	-	-	-	-	-	5	5	5	5	5	5	5	5	5
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	1	1	5	0	0	5	4	4	5	5	5	5	1	5	5
			26	0	0	5	0	0	5	4	4	5	5	5	5	1	5	5
			33		R 26			R 26		4	4	5	5	5	5		R 26	
10	52192	529	42	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			48	-	-	-	-	-	-	3	3	B4	4	4	5	-	-	-
			54	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			60	-	-	-	-	-	-	3	3	5	4	4	5	-	-	-
			72	-	-	-	-	-	-	0	0	5	3	3	5	-	-	-
			84	-	-	-	-	-	-		R 72		5	5	5	-	-	-

TABLE VI - (CON'T).

ALUMINUM - RAIN FOREST

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	3	3	5	3	3	5	5	5	5	5	5	5	5	5	5
			19	0	0	5	3	3	5	5	5	5	5	5	5	5	5	5
			26	0	0	5	0	0	5	4	4	5	5	5	5	5	5	5
			33	R 26			0	0	5	5	5	5	5	5	5	5	5	5
11	52192	527	42	-	-	-	R 33			4	4	5	5	5	5	5	5	5
			48	-	-	-	-	-	-	4	4	5	5	5	5	5	5	5
			54	-	-	-	-	-	-	5	5	5	5	5	5	5	5	5
			60	-	-	-	-	-	-	5	5	5	5	5	5	4	4	5
			72	-	-	-	-	-	-	1	1	5	5	5	5	4	4	5
			84	-	-	-	-	-	-	R 72			5	5	5	5	5	5
			6	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	3	3	5	4	4	5	5	5	5	5	5	5	5	5	5
			19	1	1	5	1	1	5	5	5	5	5	5	5	3	3	5
			26	0	0	5	0	0	5	4	4	5	5	5	5	0	0	5
			33	R 26			R 26			5	5	5	5	5	5	R 26		
12	52192	489	42	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			48	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			54	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			60	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			72	-	-	-	-	-	-	3	3	5	5	5	5	-	-	-
			84	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-

TABLE VI - (CON'T)

ALUMINUM - RAIN FOREST

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	4	4	5	4	4	5	5	5	5	5	5	5	5	5	5
			19	1	1	5	1	1	5	5	5	5	5	5	5	3	3	5
			26	0	0	5	0	0	5	4	4	5	4	4	5	3	3	5
			33		R 26			R 26		4	4	5	4	4	5	3	3	5
13	Exp. Epoxy	529	42	-	-	-	-	-	-	5	5	5	5	5	5	0	0	5
			48	-	-	-	-	-	-	4	4	5	5	5	5	0	0	5
			54	-	-	-	-	-	-	5	5	5	5	5	5		R 48	
			60	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			72	-	-	-	-	-	-	3	3	5	5	5	5	-	-	-
			84	-	-	-	-	-	-	4	4	5	5	5	5	-	-	-
			6	5	2	C2-4	5	5	5	5	5	5	5	5	5	5	5	5
			12		R 6		5	5	5	5	5	5	5	5	5	5	5	5
			19	-	-	-	4	4	5	5	5	5	5	5	5	4	4	C0<8
			26	-	-	-	4	4	5	5	5	5	5	5	5	4	4	C0<8
			33	-	-	-	5	5	5	5	5	5	5	5	5		R 26	
14	664	529	42	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			48	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			54	-	-	-	4	4	5	5	5	5	5	5	5	-	-	-
			60	-	-	-	4	4	C4-8	5	5	5	5	5	5	-	-	-
			72	-	-	-	3	3	5	5	5	5	5	5	5	-	-	-
			84	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-

TABLE VI - (CON'T)

ALUMINUM - RAIN FOREST

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
			6	5	5	C2-4	5	5	5	5	5	5	5	5	5	4	4	5
			12		R 6		5	5	5	5	5	5	5	5	5	5	5	5
			19	-	-	-	1	1	5	5	5	5	5	5	5	2	2	5
			26	-	-	-	1	1	5	5	5	5	5	5	5	3	3	5
			33	-	-	-	1	1	5	5	5	5	5	5	5	3	3	5
15	11414	529	42	-	-	-		R 33		5	5	5	5	5	5	3	3	5
			48	-	-	-	-	-	-	5	5	5	4	4	B4	3	3	B3
			54	-	-	-	-	-	-	5	5	5	5	5	5	4	4	5
			60	-	-	-	-	-	-	5	5	5	4	4	5	0	0	5
			72	-	-	-	-	-	-	3	3	5	3	3	C1-8		R 60	
			84	-	-	-	-	-	-	5	5	5		R 72		-	-	-
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	C0<8	5	5	C0-8	5	5	5	5	5	5
			19	5	5	5		R 12			R 12		5	5	5	5	5	5
			26	5	5	5	-	-	-	-	-	-	5	5	5	4	4	5
			33	5	5	5	-	-	-	-	-	-	5	5	5	5	5	5
16	27316	529	42	5	5	5	-	-	-	-	-	-	5	5	5	4	4	5
			48	5	5	5	-	-	-	-	-	-	5	5	5	4	4	5
			54	6	5	5	-	-	-	-	-	-	5	5	5	5	4	5
			60	5	5	5	-	-	-	-	-	-	5	5	5	0	0	5
			72	5	5	5	-	-	-	-	-	-	5	5	5		R 60	
			84	5	5	5	-	-	-	-	-	-	5	5	5	-	-	-

TABLE VI - (CON'T)

ALUMINUM - RAIN FOREST

Metal Preparation				Solvent Cleaned			MIL-M-10578			MIL-C-5541			MIL-A-8625			MIL-P-15328		
System No.	System Primer	System Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	2	2	5	0	0	5	5	5	5	5	5	5	3	3	5
			26	0	0	5	0	0	5	5	5	5	5	5	5	3	3	5
			33	0	0	5	0	0	5	5	5	5	5	5	5	3	3	5
17	23377	529	42	R 33			R 33			5	5	5	5	5	5	4	4	5
			48	-	-	-	-	-	-	4	4	5	5	5	B4	3	3	5
			54	-	-	-	-	-	-	5	5	5	5	5	5	3	3	5
			60	-	-	-	-	-	-	4	4	5	4	4	5	R 54		
			72	-	-	-	-	-	-	4	4	C4<8	4	4	5	-	-	-
			84	-	-	-	-	-	-	5	5	5	5	5	5	-	-	-
			6	5	5	C2-8	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	C0-6	4	4	5	5	5	5	5	5	5	5	5	5
			19	R 12			1	1	5	4	4	5	4	4	5	3	3	5
			26	-	-	-	0	0	5	4	4	5	4	4	5	4	4	5
			33	-	-	-	R 26			4	4	5	4	4	5	4	4	5
18	485	529	42	-	-	-	-	-	-	5	5	5	3	3	5	4	4	5
			48	-	-	-	-	-	-	3	3	B3	4	4	5	4	4	5
			54	-	-	-	-	-	-	4	4	C4<8	5	5	5	4	4	5
			60	-	-	-	-	-	-	3	3	C2-8	4	4	5	0	0	5
			72	-	-	-	-	-	-	2	2	5	4	4	5	R 60		
			84	-	-	-	-	-	-	R 72			4	4	5	-	-	-

TABLE VII

MAGNESIUM - BREAKWATER

Metal Preparation				MIL-M-45202									MIL-M-3171											MIL-P-15328		
	System			Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV							
System No.	Primer	Top-coat	Months Exposure	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.					
1	15930	529	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			0	0	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			SR 6		5
			19	4	4	5	4	4	5	4	4	5	5	5	5	5	5	5	5	5	5			-	-	5
			26	4	4	5	4	4	B4	1	1	5	4	4	5	4	4	5	4	4	5			-	-	5
			33	4	4	5	4	4	5	2	2	5	4	4	5	4	4	5	4	4	5			-	-	5
			42	4	4	5	4	4	5	0	0	5	3	3	A4	4	4	5	4	4	5			-	-	R 33
			48	4	4	5	4	4	5	SR 42		5	SR 42		5	4	4	5	4	4	5			-	-	-
			54	4	4	5	4	4	5	-	-	5	-	-	5	4	4	5	4	4	5			-	-	-
			60	4	4	5	4	4	5	-	-	5	-	-	A4	4	4	5	4	4	5			-	-	-
			72	3	3	5	3	3	5	-	-	A4	-	-	A4	4	4	5	4	4	5			-	-	-
			84	SR 72		5	4	4	B4	-	-	5	-	-	5	4	4	5	4	4	5			-	-	-
2	15930	489	6	4	4	5	5	5	5	4	4	5	5	5	5	5	5	5	5	5	5			0	0	5
			12	SR 6		5	5	5	5	SR 6		5	5	5	5	5	5	5	5	5	5			SR 6		5
			19	-	-	5	4	4	B4	-	-	5	4	4	5	5	5	5	5	5	5			-	-	5
			26	-	-	5	4	4	5	-	-	5	4	4	5	4	4	5	4	4	5			-	-	5
			33	-	-	4	4	4	B3	-	-	B4	4	4	5	5	5	5	5	5	5			-	-	5
			42	-	-	5	4	4	A4	-	-	5	4	4	A4	4	4	5	3	3	5			-	-	R 33
			48	-	-	5	4	4	B4	-	-	B4	SR 42		B4	4	4	5	4	4	5			-	-	-
			54	-	-	C4-8	4	4	B3	-	-	A4	-	-	A3	4	4	5	3	3	5			-	-	-
			60	-	-	B4	SR 54		R 54	-	-	5	-	-	R 54	4	4	5	4	4	5			-	-	-
			72	-	-	A4	-	-	-	-	-	B3	-	-	-	4	4	A4	4	4	A4			-	-	-
			84	-	-	B3	-	-	-	-	-	B3	-	-	-	4	4	5	4	4	94			-	-	-

TABLE VII - (CON'T)

MAGNESIUM - BREAKWATER

Metal Preparation				MIL-M-45202						MIL-M-3171												MIL-P-15328		
				Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV					
	System			Score			Score			Score			Score			Score			Score			Score		
System No.	Primer	Top-coat	Months Exposure	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.
3	15930	527	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	3	3	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	SR 6		5
			19	5	5	5	5	5	5	4	4	5	3	3	5	5	5	5	5	5	5	-	-	5
			26	4	4	5	4	4	5	4	4	5	3	3	5	4	4	5	4	4	5	-	-	5
			33	4	4	5	5	5	5	4	4	5	3	3	A3	5	5	5	5	5	5	-	-	5
			42	4	4	5	5	5	5	3	[illegible]	5	3	3	A3	4	4	5	4	4	5	-	-	R 33
			48	4	4	B4	4	4	5	4		B4	SR 42		R 42	4	4	B4	4	4	5	-	-	-
			54	4	4	5	5	5	5	3	3	5	-	-	-	4	4	5	4	4	5	-	-	-
			60	4	4	5	5	5	5	4	4	B4	-	-	-	4	4	5	4	4	5	-	-	-
			72	3	3	5	4	4	5	3	3	A4	-	-	-	3	3	A4	3	3	A4	-	-	-
			84	4	4	B4	4	4	5	4	4	B4	-	-	-	4	4	B4	4	4	5	-	-	-
4	15930	22750	6	5	5	5	5	5	5	2	2	5	5	5	5	5	5	5	5	5	5	0	0	5
			12	5	5	5	5	5	5	SR 6		5	4	4	5	4	4	5	4	4	5	SR 6		5
			19	3	3	5	4	4	5	-	-	5	SR 12		-	3	3	5	3	3	5	-	-	R 12
			26	3	3	5	3	3	5	-	-	5	-	-	5	0	0	5	3	3	5	-	-	-
			33	3	3	5	4	4	5	-	-	5	-	-	5	SR 26		5	1	1	5	-	-	-
			42	3	3	A4	3	3	5	-	-	A4	-	-	A4	-	-	5	0	0	5	-	-	-
			48	SR 42		5	SR 42		5	-	-	B4	-	-	5	-	-	5	SR 42		5	-	-	-
			54	-	-	5	-	-	5	-	-	A4	-	-	A4	-	-	5	-	-	5	-	-	-
			60	-	-	5	-	-	5	-	-	5	-	-	5	-	-	5	-	-	5	-	-	-
			72	-	-	5	-	-	5	-	-	5	-	-	A4	-	-	5	-	-	5	-	-	-
			84	-	-	B4	-	-	B4	-	-	B3	-	-	B3	-	-	5	-	-	B4	-	-	-

TABLE VII - (CON'T)

MAGNESIUM - BREAKWATER

Metal Preparation				MIL-M-45202						MIL-M-3171													MIL-P-15328		
				Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV						
	System			Score			Score			Score			Score			Score			Score						
System No.	Primer	Top-coat	Months Exposure	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.		C/B	U	Sur.
			6	3	3	5	4	4	5	3	3	5	4	4	5	5	5	5	3	3	5		3	3	5
			12	SR 6		5	SR 6		5	SR 6		5	SR 6		5	5	5	5	SR 6		5		SR 6		5
			19	-	-	5	-	-	5	-	-	5	-	-	5	4	4	5	-	-	5		-	-	5
			26	-	-	5	-	-	5	-	-	A2	-	-	5	3	3	5	-	-	5		-	-	5
			33	-	-	R 26	-	-	5	-	-	R 26	-	-	B4	4	4	5	-	-	5		-	-	5
5	52192	590	42	-	-	-	-	-	R 33	-	-	-	-	-	A3	4	4	5	-	-	5		-	-	5
			48	-	-	-	-	-	-	-	-	-	-	-	B3	4	4	5	-	-	5		-	-	5
			54	-	-	-	-	-	-	-	-	-	-	-	R 47	4	4	5	-	-	5		-	-	5
			60	-	-	-	-	-	-	-	-	-	-	-	-	4	4	5	-	-	5		-	-	5
			72	-	-	-	-	-	-	-	-	-	-	-	-	3	3	5	-	-	5		-	-	C4
			84	-	-	-	-	-	-	-	-	-	-	-	-	R 72		5	-	-	5		-	-	5
			6	3	3	5	3	3	5	3	3	5	3	3	5	5	5	5	4	4	5		2	2	5
			12	SR 6		5	SR 6		5	SR 6		5	SR 6		5	5	5	5	SR 6		5		SR 6		5
			19	-	-	5	-	-	5	-	-	B3	-	-	B4	4	4	5	-	-	5		-	-	5
			26	-	-	5	-	-	5	-	-	B3	-	-	B4	4	4	5	-	-	5		-	-	CO-8
			33	-	-	5	-	-	5	-	-	A2	-	-	A2	4	4	5	-	-	5		-	-	B4
6	52192	489	42	-	-	5	-	-	5	-	-	R 33	-	-	R 33	4	4	5	-	-	5		-	-	A4
			48	-	-	5	-	-	B4	-	-	-	-	-	-	4	4	5	-	-	5		-	-	A3
			54	-	-	5	-	-	A4	-	-	-	-	-	-	4	4	5	-	-	5		-	-	R 47
			60	-	-	5	-	-	5	-	-	-	-	-	-	4	4	5	-	-	5		-	-	-
			72	-	-	A4	-	-	A4	-	-	-	-	-	-	3	3	5	-	-	5		-	-	-
			84	-	-	B4	-	-	B4	-	-	-	-	-	-	4	4	5	-	-	5		-	-	-

TABLE VII - (CON'T)

MAGNESIUM - BREAKWATER

Metal Preparation				MIL-M-45202						MIL-M-3171												MIL-P-15328		
	System			Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV					
System No.	Primer	Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
7	52192	527	6	2	2	5	3	3	5	2	2	5	3	3	A4	5	5	5	3	3	5	0	0	5
			12	SR 6		5	SR 6		5	SR 6		B4	SR 6		5	5	5	5	SR 6		5	SR 6		5
			19	-	-	5	-	-	5	-	-	B4	-	-	B3	4	4	5	-	-	5	-	-	5
			26	-	-	5	-	-	5	-	-	B4	-	-	B3	3	3	5	-	-	5	-	-	5
			33	-	-	5	-	-	5	-	-	5	-	-	A2	4	4	5	-	-	5	-	-	5
			42	-	-	5	-	-	5	-	-	A4	-	-	R 33	4	4	5	-	-	5	-	-	5
			48	-	-	5	-	-	5	-	-	B3	-	-	-	4	4	5	-	-	5	-	-	5
			54	-	-	5	-	-	5	-	-	R 54	-	-	-	4	4	5	-	-	5	-	-	5
			60	-	-	5	-	-	5	-	-	-	-	-	-	4	4	5	-	-	5	-	-	5
			72	-	-	5	-	-	5	-	-	-	-	-	-	3	3	5	-	-	5	-	-	5
			84	-	-	5	-	-	5	-	-	-	-	-	-	4	4	5	-	-	5	-	-	5
8	52192	22750	6	2	2	5	3	3	5	2	2	5	2	2	5	5	5	5	0	0	5	0	0	5
			12	SR 6		5	SR 6		5	SR 6		5	SR 6		5	4	4	5	SR 6		5	SR 6		5
			19	-	-	5	-	-	5	-	-	5	-	-	6	3	3	5	-	-	5	-	-	5
			26	-	-	5	-	-	5	-	-	5	-	-	5	3	3	5	-	-	5	-	-	5
			33	-	-	5	-	-	5	-	-	5	-	-	5	SR 26		5	-	-	5	-	-	5
			42	-	-	5	-	-	5	-	-	A3	-	-	A4	-	-	5	-	-	5	-	-	A4
			48	-	-	5	-	-	5	-	-	R 42	-	-	B4	-	-	5	-	-	5	-	-	B2
			54	-	-	5	-	-	5	-	-	-	-	-	5	-	-	5	-	-	5	-	-	R 47
			60	-	-	5	-	-	5	-	-	-	-	-	5	-	-	5	-	-	5	-	-	-
			72	-	-	A4	-	-	A4	-	-	-	-	-	A4	-	-	5	-	-	5	-	-	-
			84	-	-	B4	-	-	B3	-	-	-	-	-	R 72	-	-	5	-	-	5	-	-	-

TABLE VII - (CON'T)

MAGNESIUM - BREAKWATER

Metal Preparation				MIL-M-45202						MIL-M-3171												MIL-P-15328		
				Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV					
	System			Score			Score			Score			Score			Score			Score			Score		
System No.	Primer	Top-coat	Months Exposure	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.
			6	5	5	5	5	5	5	5	5	B3	5	5	A4	5	5	5	5	5	A4	3	3	5
			12	5	5	5	5	5	5	SR 6		B2	SR 6		B3	5	5	5	SR 6		B3	SR 6		5
			19	4	4	5	4	4	5	-	-	R 12	-	-	R 12	4	4	5	-	-	B2	-	-	5
			26	4	4	5	4	4	5	-	-	-	-	-	-	4	4	5	-	-	R 19	-	-	5
			33	4	4	5	4	4	5	-	-	-	-	-	-	4	4	A4	-	-	-	-	-	5
9	8585	529	42	4	4	5	4	4	5	-	-	-	-	-	-	4	4	5	-	-	-	-	-	5
			48	4	4	5	4	4	5	-	-	-	-	-	-	4	4	5	-	-	-	-	-	5
			54	4	4	5	4	4	5	-	-	-	-	-	-	4	4	5	-	-	-	-	-	A4
			60	4	4	B4	4	4	B4	-	-	-	-	-	-	4	4	B4	-	-	-	-	-	A4
			72	3	3	A4	4	4	A4	-	-	-	-	-	-	3	3	A4	-	-	-	-	-	A4
			84	4	4	B4	4	4	B3	-	-	-	-	-	-	4	4	B3	-	-	-	-	-	B4
			6	5	5	5	5	5	5	5	5	B3	5	5	5	5	5	5	5	5	5	0	0	A4
			12	5	5	5	5	5	5	SR 6		B2	SR 6		B3	5	5	5	5	5	5	SR 6		5
			19	5	5	5	5	5	5	-	-	R 12	-	-	R 12	3	3	5	5	5	B4	-	-	B3
			26	4	4	5	4	4	5	-	-	-	-	-	-	4	4	5	3	3	5	-	-	A3
			33	5	5	5	5	5	5	-	-	-	-	-	-	4	4	5	4	4	B3	-	-	B2
10	8585	489	42	4	4	5	5	5	5	-	-	-	-	-	-	4	4	5	4	4	A3	-	-	R 33
			48	4	4	5	4	4	5	-	-	-	-	-	-	4	4	5	SR 42		R 42	-	-	-
			54	4	4	5	4	4	A4	-	-	-	-	-	-	4	4	5	-	-	-	-	-	-
			60	4	4	5	4	4	B4	-	-	-	-	-	-	4	4	5	-	-	-	-	-	-
			72	3	3	5	3	3	5	-	-	-	-	-	-	4	4	5	-	-	-	-	-	-
			84	4	4	5	4	4	B3	-	-	-	-	-	-	4	4	5	-	-	-	-	-	-

TABLE VII - (CON'T)

MAGNESIUM - BREAKWATER

Metal Preparation				MIL-M-45202						MIL-M-3171												MIL-P-15328		
				Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV					
	System			Score			Score			Score			Score			Score			Score			Score		
System No.	Primer	Top-coat	Months Exposure	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.
			6	5	5	5	5	5	5	4	4	B2	5	5	B2	5	5	5	5	5	5	3	3	5
			12	5	5	5	5	5	5	SR 6		B2	SR 6		B2	5	5	5	5	5	B3	SR 6		5
			19	5	5	5	5	5	5	-	-	R 12	-	-	R 12	5	5	B4	4	4	B4	-	-	B4
			26	4	4	5	4	4	5	-	-	-	-	-	-	3	3	B3	4	4	B2	-	-	B4
			33	5	5	5	5	5	5	-	-	-	-	-	-	3	3	B3	3	3	B1	-	-	B4
11	8585	527	42	4	4	5	4	4	5	-	-	-	-	-	-	SR 33		R 33	SR 33		R 33	-	-	R 33
			48	4	4	5	4	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			54	4	4	5	4	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			60	4	4	B4	4	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			72	4	4	A4	4	4	A4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			84	4	4	B4	4	4	B4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	2	2	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	SR 6		5
			19	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	-	-	5
			26	3	3	5	4	4	5	3	3	5	3	3	5	3	3	5	3	3	5	-	-	5
			33	5	5	5	5	5	5	4	4	5	4	4	5	4	4	5	5	5	5	-	-	5
12	8585	22750	42	4	4	5	4	4	5	3	3	5	3	3	5	3	3	5	3	3	5	-	-	5
			48	4	4	5	4	4	5	4	4	5	4	4	5	4	4	5	4	4	5	-	-	5
			54	4	4	5	4	4	5	4	4	5	4	4	5	4	4	5	4	4	5	-	-	C4-6
			60	4	4	5	4	4	5	4	4	5	4	4	5	4	4	5	4	4	5	-	-	B2
			72	3	3	A4	4	4	B3	3	3	A3	4	4	A4	3	3	B4	3	3	A4	-	-	R 60
			84	4	4	B4	4	4	B4	3	3	B3	3	3	B4	3	3	5	3	3	5	-	-	-

TABLE VII - (CON'T)

MAGNESIUM - BREAKWATER

Metal Preparation				MIL-M-45202						MIL-M-3171												MIL-P-15328		
				Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV					
	System			Score			Score			Score			Score			Score			Score			Score		
System No.	Primer	Top-coat	Months Exposure	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.
			6	5	5	5	5	5	5	5	5	A3	5	5	A4	5	5	5	5	5	5	3	3	5
			12	5	5	5	5	5	5	SR 6		A2	SR 6		A4	5	5	5	SR 6		5	SR 6		5
			19	4	4	5	5	5	5	-	-	B2	-	-	B3	5	5	5	-	-	5	-	-	5
			26	4	4	5	4	4	5	-	-	R 19	-	-	C3	4	4	5	-	-	5	-	-	5
			33	4	4	5	4	4	5	-	-	-	-	-	B4	4	4	5	-	-	5	-	-	R 33
13	27316	529	42	4	4	5	4	4	5	-	-	-	-	-	A4	4	4	5	-	-	A4	-	-	-
			48	4	4	5	4	4	5	-	-	-	-	-	B4	4	4	5	-	-	5	-	-	-
			54	4	4	5	5	5	A4	-	-	-	-	-	B4	4	4	5	-	-	5	-	-	-
			60	4	4	5	4	4	B4	-	-	-	-	-	R 54	4	4	5	-	-	B4	-	-	-
			72	4	4	5	4	4	A4	-	-	-	-	-	-	4	4	A4	-	-	A4	-	-	-
			84	4	4	5	4	4	B4	-	-	-	-	-	-	4	4	A4	-	-	5	-	-	-
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5
			12	5	5	5	5	5	5	5	5	A4	5	5	5	5	5	5	5	5	5	SR 6		5
			19	4	4	5	5	5	5	5	5	5	5	5	B2	4	4	5	5	5	5	-	-	5
			26	4	4	5	4	4	5	4	4	5	SR 19		R 19	4	4	5	4	4	5	-	-	5
			33	4	4	5	4	4	5	4	4	5	-	-	-	4	4	5	5	5	5	-	-	5
14	23377	529	42	4	4	5	4	4	5	4	4	A4	-	-	-	4	4	5	4	4	5	-	-	A4
			48	4	4	5	4	4	5	4	4	5	-	-	-	4	4	5	4	4	5	-	-	R 42
			54	4	4	5	4	4	5	4	4	5	-	-	-	4	4	5	4	4	5	-	-	-
			60	4	4	5	4	4	5	4	4	B4	-	-	-	4	4	5	4	4	5	-	-	-
			72	3	3	5	4	4	5	4	4	A4	-	-	-	4	4	5	4	4	5	-	-	-
			84	4	4	5	4	4	5	4	4	B4	-	-	-	4	4	5	4	4	5	-	-	-

TABLE VII - CON'T)

MAGNESIUM - BREAKWATER

Metal Preparation				MIL-M-45202						MIL-M-3171														MIL-P-15328		
				Type I Class C				Type II Class D			Type I			Type II			Type III			Type IV						
	System			Score				Score			Score			Score			Score			Score				Score		
System No.	Primer	Top-coat	Months Exposure	C/B	U	Sur.		C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.		C/B	U	Sur.
			6	5	5	5		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		2	2	5
			12	5	5	5		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		SR 6		5
			19	5	5	5		5	5	5	5	5	5	5	5	5	4	4	5	4	4	5		-	-	5
			26	4	4	5		4	4	5	4	4	5	4	4	5	4	4	5	4	4	5		-	-	5
			33	4	4	5		4	4	5	4	4	5	5	5	5	4	4	5	5	5	5		-	-	5
15	Exp. Epoxy	529	42	4	4	5		4	4	5	4	4	5	4	4	5	4	4	5	4	4	5		-	-	P. 33
			48	4	4	5		4	4	5	4	4	5	4	4	C4-8	4	4	5	4	4	5		-	-	-
			54	4	4	5		4	4	5	4	4	5	4	4	A4	4	4	5	4	4	5		-	-	-
			60	4	4	5		4	4	5	4	4	5	4	4	B4	4	4	5	4	4	5		-	-	-
			72	4	4	5		4	4	5	4	4	5	4	4	5	3	3	5	4	4	5		-	-	-
			84	4	4	5		4	4	5	4	4	5	4	4	B3	4	4	5	4	4	5		-	-	-

TABLE VIII

MAGNESIUM - RAIN FOREST

Metal Preparation				MIL-M-45202						MIL-M-3171												MIL-P-15328		
				Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV					
	System			Score			Score			Score			Score			Score			Score			Score		
System No.	Primer	Top-coat	Months Exposure	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	R 12		
			26	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-
			33	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-
1	15930	529	42	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-
			48	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-
			54	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-
			60	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-
			72	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-
			84	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	C2-6
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	C2-8	5	5	5	R 6		
			19	5	5	5	5	5	5	5	5	5	5	5	5	R 12			5	5	5	-	-	-
			26	5	5	5	5	5	5	5	5	C0-8	5	5	5	-	-	-	5	5	5	-	-	-
			33	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-	R 26			-	-	-
2	15930	489	42	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-	-	-	-	-	-	-
			48	5	5	C0<8	5	5	5	5	5	5	4	4	5	-	-	-	-	-	-	-	-	-
			54	R 48			5	5	5	5	5	5	5	5	5	-	-	-	-	-	-	-	-	-
			60	-	-	-	5	5	5	5	5	5	4	4	5	-	-	-	-	-	-	-	-	-
			72	-	-	-	5	5	5	3	3	C2-8	4	4	5	-	-	-	-	-	-	-	-	-
			84	-	-	-	5	5	5	R 72			5	5	5	-	-	-	-	-	-	-	-	-

TABLE VIII - (CON'T)

MAGNESIUM - RAIN FOREST

Metal Preparation				MIL-M-45202						MIL-M-3171												MIL-P-15328		
	System			Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV					
System No.	Primer	Top-coat	Months Exposure	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.
3	15930	527	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			26	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			33	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			42	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			48	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			54	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			60	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			72	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			84	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
4	15930	22750	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	C1-8	5	5	5	5	5	5
			19	5	5	5	5	5	5	5	5	5	5	5	5	R 12			5	5	5	5	5	5
			26	4	4	5	5	5	C0<8	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5
			33	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5
			42	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5
			48	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-	5	5	5	5	5	C0-8
			54	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5
			60	5	5	5	5	5	5	5	5	C4-6	5	5	5	-	-	-	5	5	5	5	5	5
			72	5	5	5	5	5	5	5	5	C3-4	5	5	5	-	-	-	5	5	C3-8	5	5	C2-8
			84	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-	5	5	5	R 72		

TABLE VIII - (CON'T)

MAGNESIUM - RAIN FOREST

Metal Preparation				MIL-M-45202						MIL-M-3171											MIL-P-15328		
	System			Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV				
System No.	Primer	Top-coat	Months Exposure	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.
5	52192	529	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			26	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			33	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			42	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			48	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	B4
			54	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	C4<8
			60	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	C2-8
			72	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	C2-8
			84	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	R 72		
6	52192	489	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			26	5	5	5	5	5	5	5		5	5	5	5	5	5	5	5	5	5	5	5	C3<8
			33	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			42	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			48	5	5	5	5	5	5	5	5	C4-8	5	5	C4-8	5	5	5	5	5	5	5	5	5
			54	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	C4<8
			60	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			72	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			84	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5

TABLE VIII - (CON'T)

MAGNESIUM - RAIN FOREST

Metal Preparation				MIL-M-45202						MIL-M-3171												MIL-P-15328		
	System			Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV					
System No.	Primer	Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
7	52192	527	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			26	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			33	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			42	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			48	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			54	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			60	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			72	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			84	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
8	52192	22750	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			26	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5
			33	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			42	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			48	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	5
			54	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			60	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	5	5
			72	5	5	C3-6	5	5	C3-6	5	5	C3-6	5	5	C3-6	5	5	C3-6	5	5	C3-6		R 60	
			84	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-

TABLE VIII - (CON'T)

MAGNESIUM - RAIN FOREST

Metal Preparation				MIL-M-45202						MIL-M-3171														MIL-P-15328		
				Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV							
	System			Score			Score			Score			Score			Score			Score							
System No.	Primer	Top-coat	Months Exposure	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.					
9	8585	529	6	5	5	5	5	5	5	5	5	C3-8	5	5	5	5	5	C3-8	5	5	5				5	5	5
			12	5	5	5	5	5	5	5	5	C3-2	5	5	C4	5	5	C3-8	5	5	C4-8				5	5	C1-6
			19	5	5	5	5	5	5	R 12			5	5	5	5	5	C3-8	5	5	5				R 12		
			26	5	5	5	5	5	5	-	-	-	5	5	5	R 19			5	5	5				-	-	-
			33	5	5	5	5	5	5	-	-	-	5	5	5	-	-	-	5	5	5				-	-	-
			42	5	5	5	5	5	5	-	-	-	5	5	5	-	-	-	5	5	5				-	-	-
			48	5	5	5	5	5	5	-	-	-	5	5	5	-	-	-	5	5	5				-	-	-
			54	5	5	5	5	5	5	-	-	-	5	5	5	-	-	-	5	5	5				-	-	-
			60	5	5	5	5	5	5	-	-	-	5	5	5	-	-	-	5	5	5				-	-	-
			72	5	5	5	5	5	5	-	-	-	5	5	5	-	-	-	5	5	5				-	-	-
			84	5	5	5	4	4	5	-	-	-	5	5	5	-	-	-	5	5	5				-	-	-
10	8585	489	6	5	5	5	5	5	5	5	5	C3-8	5	5	5	5	5	5	5	5	5				5	5	5
			12	5	5	5	5	5	5	R 6			5	5	5	5	5	5	5	5	5				5	5	C1<8
			19	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5				R 12		
			26	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5				-	-	-
			33	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5				-	-	-
			42	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5				-	-	-
			48	5	5	B4	4	4	5	-	-	-	5	5	5	5	5	C3-8	5	5	C4-8				-	-	-
			54	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5				-	-	-
			60	5	5	5	5	5	5	-	-	-	5	5	5	5	5	C3-8	5	5	C4-8				-	-	-
			72	5	5	C3-8	4	4	5	-	-	-	5	5	5	5	5	C3-8	5	5	C4-8				-	-	-
			84	5	5	5	5	4	5	-	-	-	5	5	5	R 72			5	5	5				-	-	-

TABLE VIII - (CON'T)

MAGNESIUM - RAIN FOREST

Metal Preparation				MIL-M-45202						MIL-M-3171												MIL-P-15328		
	System			Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV					
				Score			Score			Score			Score			Score			Score			Score		
System No.	Primer	Top-coat	Months Exposure	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.	C/B	U	Sur.
			6	5	5	5	5	5	5	5	5	C1-8	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	R 6			5	5	5	5	5	5	5	5	5	5	5	5
			19	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			26	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			33	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
11	8585	527	42	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			48	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			54	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			60	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			72	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			84	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5
			6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	C1-8
			12	5	5	5	5	5	5	5	5	C3-2	5	5	5	5	5	5	5	5	5	5	5	C1-8
			19	5	5	5	5	5	5	R 12			5	5	5	5	5	5	5	5	5	5	5	C2-3
			26	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	4	4	C0-8
			33	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	R 26		
12	8585	22750	42	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			48	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			54	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			60	5	5	5	5	5	5	-	-	-	5	5	5	5	5	5	5	5	5	-	-	-
			72	5	5	5	5	5	5	-	-	-	5	5	C4-8	5	5	C2-8	5	5	5	-	-	-
			84	5	5	5	5	5	5	-	-	-	5	5	5	R 72			5	5	5	-	-	-

TABLE VIII - (CON'T)

MAGNESIUM - RAIN FOREST

Metal Preparation				MIL-M-45202						MIL-M-3171												MIL-P-15328		
	System			Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV					
System No.	Primer	Top-coat	Months Exposure	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.	Score C/B	Score U	Sur.
13	27316	529	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	CO-8	5	5	CO-8	5	5	CO-8	5	5	CO-8	5	5	CO-8	5	5	CO-8	5	5	CO-8
			19	R 12			R 12			R 12			R 12			R 12			R 12			R 12		
			26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	23377	529	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			26	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			33	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			42	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			48	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			54	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			60	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			72	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			84	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5

TABLE VIII - (CON'T)

MAGNESIUM - RAIN FOREST

Metal Preparation				MIL-M-45202						MIL-M-3171												MIL-P-15328		
	System			Type I Class C			Type II Class D			Type I			Type II			Type III			Type IV					
System No.	Primer	Top-coat	Months Exposure	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.	Score C/B	U	Sur.
15	Exp Epoxy	529	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			12	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			19	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			26	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			33	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			42	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			48	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			54	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			60	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			72	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	3	3	5
			84	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5

TABLE IX

ALUMINUM (MONTHS TO FAILURE) 7 YEARS EXPOSURE AT BREAKWATER

Surface Preparation		Solvent Cleaned		MIL-M-10578		MIL-C-5541		MIL-A-8625		MIL-P-15328	
Primer	Topcoat	Score	Surface	Score	Surface	Score	Surface	Score	Surface	Score	Surface
8585	529	--	6	26	--	--	--	--	--	--	--
	527	--	6	--	--	--	--	--	--	42	--
	489	--	6	72	--	--	--	--	--	--	6
666	529	19	--	19	--	--	--	--	--	19	--
15930	529	12	--	19	--	--	--	--	--	26	--
	527	19	--	--	48	--	--	--	--	--	--
	489	19	--	19	--	--	--	--	--	19	--
52192	529	6	--	6	--	6	--	--	--	6	--
	527	6	--	6	--	19	--	--	--	19	--
	489	6	--	6	--	12	--	--	--	12	--
Exp. Epoxy	529	12	33	12	--	--	--	--	--	12	--
664	529	12	6	19	--	54	--	--	--	19	--
11414	529	12	6	12	--	26	--	33	--	12	--
27316	529	--	--	--	--	--	--	--	--	26	--
23377	529	12	--	12	--	--	--	--	--	12	--
485	529	12	--	12	--	--	--	19	--	26	--
Number Satisfactory After 7 Years Exposure - 16 Systems											
		1		2		11		14		2	

TABLE X

ALUMINUM (MONTHS TO FAILURE) 7 YEARS EXPOSURE AT RAIN FOREST

Surface Preparation		Solvent Cleaned		MIL-M-10578		MIL-C-5541		MIL-A-8625		MIL-P-15328	
Primer	Topcoat	Score	Surface	Score	Surface	Score	Surface	Score	Surface	Score	Surface
8585	529	--	6	--	--	--	--	--	--	--	6
	527	--	6	--	--	--	--	--	--	--	6
	489	--	6	--	--	--	--	--	--	--	6
666	529	--	6	--	--	--	--	--	--	--	--
15390	529	--	--	--	--	--	--	--	--	--	--
	527	--	60	48	--	--	--	--	--	--	--
	489	48	--	26	--	--	--	--	--	--	--
52192	529	19	--	19	--	60	--	--	--	19	--
	527	12	--	12	--	72	--	--	--	--	--
	489	12	--	19	--	--	--	--	--	19	--
Exp. Epoxy	529	19	--	19	--	--	--	--	--	19	--
664	529	--	6	--	--	--	--	--	--	--	19
11414	529	--	6	19	--	--	--	--	72	19	--
27316	529	--	--	--	12	--	12	--	--	60	--
23377	529	19	--	19	--	--	--	--	--	19	--
485	529	--	6	19	--	48	48	--	--	60	--

Number Satisfactory After 7 Years Exposure - 16 Systems

	2	6	12	15	5

TABLE XI

ALUMINUM SYSTEMS RATED 4 OR BETTER AT BOTH SITES AFTER 7 YEARS

Surface Preparation		Solvent Cleaned	MIL-M-10578	MIL-C-5541	MIL-A-8625	MIL-P-15328
Primer	Topcoat					
8585	529			X	X	
	527		X	X	X	
	489			X	X	
666	529			X	X	
15930	529			X	X	
	527			X	X	X
	489			X	X	
52192	529				X	
	527				X	
	489				X	
Exp. Epoxy	529			X	X	
664	529				X	
11414	529					
27316	529	X			X	
23377	529			X	X	
485	429					
Total (16 Systems)		1	1	9	14	1

TABLE XII

MAGNESIUM (MONTHS TO FAILURE) 7 YEARS EXPOSURE AT BREAKWATER

Pretreatment		MIL-M-45202				MIL-M-3171								MIL-P-15328	
System		Type I Class C		Type II Class D		Type I Chrome Pickle		Type II Sealed Chrome Pickle		Type III Dichromate		Type IV Galvanic Anodize		Wash Primer (1/2 Acid)	
Primer	Topcoat	Score	Sur.	Score	Sur.	Score	Sur.	Score	Sur.	Score	Sur.	Score	Sur.	Score	Sur.
15930	529	72	--	--	--	26	--	42	--	--	--	--	--	6	33
	489	6	--	--	54	--	72	48	54	--	--	--	--	6	33
	527	--	--	--	--	--	--	19	33	--	--	--	--	6	33
	22750	19	--	42	--	6	--	19	--	19	--	19	--	6	12
52192	529	6	26	12	33	6	26	12	42	72	--	6	--	6	--
	489	6	--	6	--	6	19	6	33	--	--	12	--	6	48
	527	6	--	6	--	6	48	6	19	--	--	6	--	6	--
	22750	6	--	6	--	6	42	6	--	19	--	6	--	6	48
8585	529	--	--	--	--	--	6	--	12	--	--	--	12	6	--
	489	--	--	--	--	--	6	--	12	--	--	33	33	6	19
	527	--	--	--	--	--	6	--	12	26	26	26	26	6	--
	22750	--	--	--	--	72	72	84*	--	72	--	72	--	6	54
27316	526	--	--	--	--	--	6	--	54	--	--	--	--	6	33
23377	529	--	--	--	--	--	--	--	19	--	--	--	--	12	42
Exp. Epoxy	529	--	--	--	--	--	--	--	84*	--	--	--	--	6	33
Number Satisfactory After 7 Years Exposure - 15 Systems															
		8		9		3		2*		10		6		0	

*Rated 3 or less at last inspection. Final rating will depend on rating during next inspection

TABLE XIII

MAGNESIUM (MONTHS TO FAILURE) 7 YEARS EXPOSURE AT RAIN FOREST

Pretreatment		MIL-M-45202				MIL-M-3171								MIL-P-15328	
System		Type I Class C		Type II Class D		Type I Chrome Pickle		Type II Sealed Chrome Pickle		Type III Dichromate		Type IV Galvanic Anodize		Wash Primer (1/2 Acid)	
Primer	Topcoat	Score	Sur.	Score	Sur.	Score	Sur.	Score	Sur.	Score	Sur.	Score	Sur.	Score	Sur.
15930	529	--	--	--	--	--	--	--	--	--	--	--	--	--	12
	489	--	48	--	--	72	72	--	--	--	12	26	26	--	6
	527	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	22750	--	--	--	--	--	--	--	--	--	12	--	--	--	72
52192	529	--	--	--	--	--	--	--	--	--	--	--	--	--	60
	489	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	527	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	22750	--	--	--	--	--	--	--	--	--	--	--	--	48	--
8585	529	--	--	--	--	--	12	--	--	--	6	--	--	--	12
	489	--	--	--	--	--	6	--	--	--	48	--	--	--	12
	527	--	--	--	--	--	6	--	--	--	--	--	--	--	--
	22750	--	--	--	--	--	12	--	--	--	72	--	--	--	6
27316	529	--	12	--	12	--	12	--	12	--	12	--	12	--	12
23377	529	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exp. Epoxy	529	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Number Satisfactory After 7 Years Exposure - 15 Systems		13		14		9		14		9		13		6	

TABLE XIV

SYSTEMS FOR MAGNESIUM 4 OR BETTER AFTER 7 YEARS AT BOTH SITES

Pretreatment		MIL-M-45202		MIL-M-3171				MIL-P-15328
System		Type I Class C	Type II Class D	Type I Chrome Pickle	Type II Sealed Chrome Pickle	Type III Dichromate	Type IV Galvanic Anodize	Wash Primer 1/2 Acid
Primer	Topcoat							
15930	529		X			X	X	
	489							
	527	X	X	X		X	X	
	22750							
52192	529							
	489					X		
	527					X		
	22750							
8585	529	X	X					
	489	X	X					
	527	X	X					
	22750	X	X		X*			
27316	529							
23377	529	X	X	X		X	X	
Exp. Epoxy	529	X	X	X	X*	X	X	
Total (15 Systems)		7	8	3	0 + 2*	6	4	0

*Rated 3 or less at last inspection. Final rating will depend on rating during next inspection.