

SMI Inc.

SCIENTIFIC MATERIAL INTERNATIONAL

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**Product: E-Z Grip (Marine Formula) (rec'd 16-Aug-1995)**

**Dilution: As received (shaken well before testing) Page 1 of 2**

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**TOTAL IMMERSION CORROSION**

**per ASTM F 483**

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**9. PROCEDURE**

1. Weigh three of four specimens of the same alloy to the nearest 0.1 mg.
2. Immerse three weighed specimens of each alloy in the solution at the prescribed temperature. Place only specimens of the same alloy in the containing vessel. Maintain at the required temperature for the prescribed exposure period. Retain the fourth specimen of each alloy for comparison purposes.
3. At the end of the 24 hours remove the test specimens and proceed as follows:
  1. Rinse thoroughly under hot tap water, 49 to 60° C. Follow with a rinse in water conforming to ASTM D 1193, Type IV at room temperature.
  2. Rinse with a stream of acetone from a wash bottle and oven dry at 120° C, desiccate until cooled to ambient, weigh and record.
  3. Then examine for and record the following visible changes in comparison with the fourth virgin specimen of each alloy.
    1. Discoloration and dulling
    2. Etching
    3. Presence of accretions and relative amounts
    4. Pitting
    5. Presence of selective or localized attack

4. Immerse the panels in the same test solution for a further 144 hours, then repeat 9.3.1 through 9.3.3.5.

<b>Alloy</b>	<b>Wgt Loss</b>		<b>WGT LOSS</b>
	<b>(mg per 1x2 inch panel)</b>		<b>mg/cm<sup>2</sup>/24hrs</b>
	<b>AFTER 24HRS</b>	<b>AFTER 168HRS</b>	
AMS 4041 Clad Aluminum	<b>0.4 mg</b>	<b>0.2 mg</b>	<b>&lt; 0.01</b>
AMS 4049 Clad Aluminum	<b>0.3 mg</b>	<b>0.3 mg</b>	<b>&lt; 0.01</b>
AMS 4376 Magnesium			
dichromate treated	<b>+ 0.6 mg</b>	<b>+ 0.6 mg</b>	<b>&lt; 0.01</b>
per MIL-M-3171 Type III			

No visible corrosion or attack on any of the above alloys.

Respectfully submitted,

Patricia D. Otero, SMI Inc.