



Certified Engineering Test Report

Test Report
TR 87-5
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Standard Production Coating Test for Elliott Pad-Mounted Equipment Enclosures

January 14, 1987

CERTIFICATION

The following test program was performed at various laboratories as listed in this report. Certified test reports are on file for all tests listed in this report. The information contained in this report is, to the best of my knowledge, correct and accurate within the usual limits of commercial testing practices.

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Product Tested

Standard production coating for Elliott Pad-Mounted Equipment Enclosures.

Introduction

The standard coating for Elliott Pad-Mounted Equipment Enclosures must meet the requirements of the ANSI Standard C57.12.28 For Pad-Mounted Equipment-Enclosure Integrity Paragraph 5.0 Enclosure Coating System. The standard coating must meet the 1500 hour Salt Spray Test (specified for the base area of the enclosure) so that extra coatings are not needed for the base area of the enclosure.

Objective

To demonstrate the performance level of the standard coating for Elliott Pad-Mounted Equipment can meet the requirements of the ANSI Standard C57.12.28 For Pad-Mounted Equipment-Enclosure Integrity Paragraph 5.0 Enclosure Coating System.

Test Specimens

Test specimens were prepared using the production coating system listed below:

Standard Coating Specifications - Pad Mount Equipment Enclosure

1.0 Metal Preparation

- 1.1 Immerse in Oakite 33 Etch solution (if scale or rust is present) to completely remove any surface corrosion.
- 1.2 Immerse in cold water rinse.
- 1.3 Immerse in Oakite 187 Phosphate for 15 minutes at 160 degrees F to clean and provide surface conversion for corrosion resistance and paint adhesion.
- 1.4 Immerse in cold water rinse.
- 1.5 Immerse in Oakite CPA for 1 minute at 160 degrees F to remove unconverted phosphate.
- 1.6 Hot dry down.

2.0 Complete Enclosure

- 2.1 Use DeVilbiss Hot Spray system (with a liquid pressure of 35 PSI and air pressure of 55 PSI) to apply 4 mils minimum of rust inhibiting Gray Vinyl Phenolic Primer (Future "Hi-Build Tek Coat" Formula 54-613) with two complete passes using the cross method of painting inside and outside the enclosure.
- 2.2 Air dry or when temperature is below 50 degrees F dry with Electrically Heated Forced Air until coating is dry to touch.



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- 2.3 Use DeVilbiss Hot Spray system (with a liquid pressure of 35 PSI and air pressure of 55 PSI) to apply 4 mils minimum of Munsell 7.0 GY3.29/1.5 Green Vinyl Phenolic (Future “Hi-Build Tek Coat” Formula 34-642) with two complete passes using the cross method of painting inside and outside.
- 2.4 Air dry or when temperature is below 50 degrees F dry with Electrically Heated Forced Air for a minimum of four hours.

NOTE: This specification should produce 5 mils dry total average coating thickness. Any enclosure which measure less than 5 mils dry total average coating thickness must be re-coated with Munsell 7.0 GY3.29/1.5 Green Vinyl Phenolic prior to shipment.

Tests Performed

Paragraphs listed are from ANSI Standard C57.12.28 For Pad-Mounted Equipment-Enclosure Integrity.

1. Paragraph 5.4.1 specifies a 1500 hour Salt Spray Test for the base of the enclosure (and a minimum of 2 inches up from the base). Other surface areas of the enclosure may be tested for 1000 hours.

RESULTS: Panels tested at the RTE Laboratories passed the requirements of this paragraph when tested much longer than 1500 hours.

2. Paragraph 5.4.2 specifies the Crosshatch Adhesion Test with 100% adhesion.

RESULTS: Panels tested at the RTE Laboratories and the Hytek Coatings Lab passed the requirements of this paragraph.

3. Paragraph 5.4.3 specifies the 1000 hour Humidity Test.

RESULTS: Panels tested at the Anderson Laboratories passed the requirements of this paragraph.

4. Paragraph 5.4.4 specifies the 160 inch-pound Impact Test.

RESULTS: Panels tested at the Hytek Coatings Lab passed the requirements of this paragraph.

5. Paragraph 5.4.5 specifies the Oil Resistance test.

RESULTS: Panels tested at the Anderson Laboratories passed the requirements of this paragraph.



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- Paragraph 5.4.6 specifies the 500 hour Ultraviolet Accelerated Weathering Test.

RESULTS: Panels tested at the McGraw-Edison Technical Center passed the requirements of this paragraph.

- Paragraph 5.4.7 specifies the 3000 cycle Abrasion Resistance Test.

RESULTS: Panels tested at the RTE Laboratories passed the requirements of this paragraph.

Conclusion

Standard production coatings for Elliott Pad-Mount Equipment Enclosures pass the requirements of ANSI Standard C57.12.28 For Pad-Mounted Equipment-Enclosure Integrity.