

**Bureau of Materials and Physical Research**

Illinois Laboratory Test Procedure

Effective Date: January 1, 2007

**Modification of Early Rust Resistance of  
Waterborne Acrylic Paint System**

**This test procedure applies to Article 1008.04(a) of the Standard Specifications for Road and Bridge Construction (January 1, 2007).**

**1.0 GENERAL**

This procedure covers the modifications to Section 6.3, Early Rust Resistance of System.

**2.0 REFERENCED DOCUMENTS**

SSPC Painting System Specification No. 24.00 (Latex Painting System for Industrial and Marine Atmospheres, Performance-Based) as outlined in Volume 2, Systems and Specifications, Seventh Edition. The performance testing shall comply with Level I, except that Section 6.3, Early Rust Resistance of System shall be modified.

**3.0 PROCEDURE**

Modify Section 6.3 according to the following.

- 6.3.1. Prepare and equilibrate an environmental chamber at 50 °F (10 °C) and approximately 75 – 80 percent R.H. Condition the paints to be applied and the panels in the environmental chamber for at least 45 minutes. If an environmental chamber is not available, a properly conditioned refrigerator with the same humidity and temperature conditions may be used.
- 6.3.2. Remove panels from the environmental chamber and apply one coat of primer, 35 to 45 microns (1.4 to 1.8 mils) dry above the profile, and return panels to the environmental chamber. After six hours, remove from the environmental chamber and allow to equilibrate for 30 minutes at ambient conditions for it to completely dry to touch (see notes 12.5 and 12.6).
- 6.3.3. Expose panels under continuous wet or condensing conditions at ambient temperature for approximately 16 hours (see note 12.7). At the end of 16 hours, immediately examine for rusting. The rusting shall not exceed 9 as judged by ASTM D 610. Blistering may occur at this time, however, allow time for recovery by drying the test panel overnight before rating the blister. The rating shall not exceed 8F according to ASTM D 714.