

**Color and Gloss Retention of Finish Coats of
Waterborne Acrylic Paint**

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

1.0 GENERAL

- 1.1 This procedure covers the test required to measure the color and gloss retention of finish coats of a waterborne acrylic paint.

2.0 REFERENCED DOCUMENTS

- 2.1 ASTM D 1730 Type A, Method I Solvent Cleaning.
- 2.2 ASTM G 154.

3.0 SAMPLE PREPARATION

- 3.1 Prepare a 12 x 4 in. (300 x 100 mm) aluminum alloy test panel according to ASTM D 1730 Type A, Method I Solvent Cleaning.
- 3.2 Apply a 250 microns (10 mil) wet film of finish coat to the prepared test panel(s).
- 3.3 Allow to air dry for seven days.
- 3.4 Measure the initial 60° specular gloss and color.

4.0 TEST PROCEDURE

- 4.1 Subject the coated test panel for 300 hours to accelerated weathering using the light and water exposure apparatus (fluorescent UV - condensation type) as specified in ASTM G 154 (equipped with UVB-313 lamps).
 - 4.1.1 The cycle shall consist of eight hours UV exposure at 140 °F (60 °C) followed by four hours of condensation at 104 °F (40 °C).
- 4.2 After exposure, rinse the test panel(s) with clean water, allow to dry at room temperature for one hour.
 - 4.2.1 Measure the 60 degrees specular gloss and color.