

**MEASUREMENT OF DISTINCTNESS OF IMAGE
OF PAINTED SURFACES**

Application

This procedure is used for measuring the distinctness of image (D.I) of painted surfaces with a beam of incident light at an angle of 30 +/- 3°.

Apparatus Required

Dorigon Glossmeter

D47R-6F Dorigon meter (optical sensor and signal processor).

Source: Hunter Associates Laboratory Inc.
Fairfax, Virginia
(703) 471-6870

Primary Standards

A highly polished, plane, black glass surface with an assigned D.I. value.

Source: Hunter Associates Laboratory Inc.

Secondary Standard

A semi-gloss ceramic tile with an assigned D.I. value.

Source: Hunter Associates Laboratory Inc.

Note: Refer to General Information Section for details regarding maintenance of the equipment and standards.

Materials Required

Soap

Neutral, liquid soap.

Deionized or Distilled Water

10 ppm max dissolved solids (ASTM D 1888).

Date	Action	Revisions
2001 03 13	Revised	Editorial – no technical change A. Cockman
1992 06 17		

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Panels

As specified in FLTM BI 103-02 (for spray systems) or BI 120-01 (for electrocoat systems) or as indicated in the applicable engineering specification.

Conditioning and Test Conditions

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 °C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

Procedure

Sample Preparation

1. Prepare paint panels per FLTM BI 103-02 or BI 120-01 or as indicated in the applicable engineering specification.
2. Wash the panels (if soiled) with neutral liquid soap and water, rinse with deionized or distilled water and blow off with air.

Standardization

1. Release the standby button and allow meter to warm up for 15 minutes.
2. Screw the three alignment posts into the port collar.
3. Place the optical sensor in cradle, with specimen port facing upward.
4. Place the primary standard on the specimen port with the beam directional arrows in the same direction.
5. Press the R_s button on the signal processor (all other buttons must be in the released position).
6. Using the adjustment knob on the optical sensor, adjust until the digital readout shows the maximum R_s reading.
7. Use the standardize control knob on the processor to adjust the digital display in order to read the calibrated R_s value of the primary standard.
8. Press the D.I. button. If the value displayed is not within +/- 1.0 of the assigned D.I. value, refer to Attachment A.
9. Place the secondary standard on the specimen port and press the R_s button.