

RESISTANCE TO ACID SPOTTING

Application

This method is used to determine the resistance of painted finishes to acid spotting.

Apparatus and Materials Required

Color Matching Booth - FLTM BI 109-01

Macbeth Color Matching Booth BX 1014 Super Skylight, BX 848a Super Skylight, or SPL 75 Spectralight, or approved equivalent.

Polyethylene Washers

Polyethylene washers, approximately 25 mm in diameter, are required for confining the acid to a specified area on the test panel.

Watch Glasses

Watch glasses are used to cover the test area.

Weather-Ometer

An Atlas XW Weather-Ometer, or equivalent, is preferred for activating the painted panel. However, when a Weather-Ometer is not available, the panels may be activated by means of a fluorescent sunlamp as described in Ford Laboratory Test Method BO 115-01.

Hydrochloric Acid - 0.5 N

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.

Date	Action	Revisions
2001 03 19	Revised	Editorial – no technical change A. Cockman
1989 12 20		

Printed copies are uncontrolled

Page 1 of 2

Copyright © 2001, Ford Global Technologies, Inc.

Procedure

1. Prepare test panels according to FLTM BI 103-02 with enamel to be tested.
2. After baking and conditioning, place the panel in the Weather-Ometer for 16 hr to activate the paint.
3. After baking and ageing place a polyethylene washer on each end of the painted panel. Fill each washer with 2 ml of 0.5 N HCL.
4. Cover the washers with watch glasses and allow the assemblies to stand for 4 hours at 23 +/- 2 °C. They must not be exposed to direct sunlight.
5. Rinse the panel with tap water, dry carefully with a clean paper towel and check for any color difference between the treated and untreated areas in accordance with FLTM BI 109-01 under North Sky Daylight. If a quantitative measurement of color difference is required by the Engineering Materials Specification check in accordance with BI 109-03.

Evaluation

Report any color difference as acid spot discoloration.

Chemicals, materials, parts, and equipment referenced in this document must be used and handled properly. Each party is responsible for determining proper use and handling in its facilities.