

EVALUATION OF CATALYSED REPAIR PAINT ENAMELS**Application**

This method is used to determine color matching, hardness and intercoat adhesion of catalysed production enamels.

Apparatus and Materials Required**Mechanical Convection Oven**

Capable of maintaining a constant temperature of 180 +/- 2 °C.

Test Panels

Steel body skin panels: Per ASTM D 609 or 1.50 x 300 mm having a surface finish of 1.35 +/- 0.45 microns Ra.

Catalyst

As specified in the appropriate Engineering Materials Specification. Percentage of catalyst as recommended by the supplier of the paint enamel.

Masking Tape and Paper**Color Matching Booth**

According to FLTM BI 109-01.

Referenced Ford Laboratory Test Methods

BI 103-02	Preparation of Panels for Paint Tests
BI 106-02	Intercoat Adhesion Test
BI 109-01	Color Matching with Artificial Light
BI 112-02	Tukon Hardness of Paint

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
1990 12 04		

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Procedure

1. Prepare a test panel as described in FLTM BI 103-02, Method "C".
2. Allow panel to cool to 23 +/- 2 °C, and rebake for 10 minutes at 140 °C metal temperature, or according to the relevant Engineering Materials Specification. Care must be taken to avoid touching the panel test surface with hands.
3. Mask off the upper half of the panel with paper and masking tape and respray the lower half with the catalysed enamel under test to a dry film thickness of 40 +/- 10 microns.
4. Remove the paper and masking tape, allow test panel to flash off for 3 minutes and bake according to the relevant Engineering Materials Specification.

Evaluation

1. After cooling to 23 +/- 2 °C compare repaired area with the unrepaired area of the test panel for color match with each other, according to FLTM BI 109-01.
2. After aging for either 72 hours at 23 +/- 2 °C, or 16 hours at 45 +/- 2 °C, check:
 - a) Tukon hardness per FLTM BI 112-02 of the recoated areas on the test panel.
 - b) Intercoat adhesion of the recoated areas of the test panel according to FLTM BI 106-01.

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.