

GREASE STAINING PAINT TEST**Application**

This procedure is used to determine the tendency for unreduced grease used in exterior or interior automotive applications, to stain or soften painted surfaces that are exposed to heat and/or sunlight.

Apparatus Required**Fluorescent Sunlamp Cabinet**

(Consists of a modified oven maintained at 63 +/- 2 °C with a sunlamp fixture consisting of four Westinghouse FS 20T-12 fluorescent sunlamps, or equivalent completely installed in the oven.)

Oven

Grieves Hendry PL-1 or equivalent. 1000 watts; O.D. 760 mm wide, 640 mm deep and 610 mm high; I.D. 725 mm wide, 610 mm deep, and 520 mm high; 110 V, AC 50 - 60 cycle single phase motor. The oven is to be equipped with thermostat control and red pilot light. (An oven stand is optional.)

Sunlamp Fixture

- . 0.91 mm steel box with screw cover.
- . Two two-lamp, 20 watt high power factor ballasts.
- . Four fluorescent starter assemblies.
- . Cover - 0.91 mm steel with Alzak aluminum reflector overlay.
- . Four pairs fluorescent lamp holders.
- . Rear of box shall be provided with four 1/4 - 20 mounting studs and screened ventilation openings.
- . Four FS 20T-12 fluorescent sunlamps.

Thickness Gage

A Gardner or equivalent wet film thickness gage.

Source: VWR Scientific (Catalog No. 52625-001)

Microhardness Tester

Tukon hardness tester or equivalent.

Bar

For application of tapered film of grease. Refer to Figure 1.

Date	Action	Revisions
2001 07 25	Revised	Editorial – no technical change A. Cockman
1990 11 27		

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Materials Required

Cloth

Shall be suitable for wiping grease from a painted panel.

Test Panel

Refer to FLTM BI 103-02, Method "C" - 100 x 300 mm. The panel(s) shall be freshly painted within 72 hours of initiating testing and baked to the minimum requirements of the currently approved white acrylic baking enamel for exterior body quality.

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

1. Check the microhardness of the painted panel(s) before test exposure per FLTM BI 112-02.
2. Place a uniform dab of test grease across the width of the painted test panel. Using a bar (as shown in Figure 1), uniformly draw the grease down approximately 1/3 of the length of the test panel to obtain a thickness ranging from 0.0 mm to 0.50 mm. A wet film gage or equivalent may be used for measuring the thickness.
3. As a control, smear the currently approved grease on the same test panel in the manner described in step 2.
4. Expose the panel in the fluorescent sunlamp cabinet for 16 hours.
5. After exposure, remove the grease with a soft cloth.
6. Check the microhardness (as in step 1) of the paint on the areas of the test panel on which the test grease and the control grease were smeared. Report any staining or softening of the paint in the areas that had been covered with grease.

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.