

THICKNESS OF SOFT PROTECTIVE COATS**Application**

This method is used to determine the film thickness of soft protective coats (e.g. wax or corrosion protective films) by calculation from coating weight and specific gravity of wax.

Apparatus Required**Analytical Balance***

Precision +/- 0.1 mg

Glass Weighing Dishes*

110 mm diameter

Mechanical Convection Oven*

Capable of maintaining a temperature of 60 +/- 2 °C.

Desiccator*

With suitable drying agent (e.g., CaCl_2)

* Source:	VWR Scientific P.O. Box 66929 O'Hare AMF Chicago, IL 60666 U.S.A.	VWR Scientific Klausstrasse 19, CH-8034 Zurich, Switzerland
	VWR Scientific 3715L Sun Hung Kai Center 30 Harbour Road Wanchai, Hong Kong	or equivalent

Materials Required**Test Panels Method A**

5 body steel panels (100 x 150 x 0.8 - 0.9 mm).

Date	Action	Revisions
2001 03 20	Revised	Editorial – no technical change A. Cockman
1990 05 22		

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Test Panels Method B

5 tin-plated panels (100 x 150 x 0.3 mm).

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

Method A

1. The wax is sprayed on body steel test panels positioned on horizontal surfaces of the vehicle such as decklid, engine hood or roof. Panels are to be attached to vehicle by magnets. Overspray on the back of panels must be manually removed prior to solvent dewaxing.
2. After this procedure, dewax the test panels by washing with warm dewaxing fluid until the panel surface is visually clean. Collect the solution in a glass weighing dish of known weight.
3. Place the dishes into a laboratory oven at 60 +/- 2 °C until the solvent is evaporated and constant weight is achieved.
4. Cool the dishes to 23 +/- 2 °C in a desiccator and reweigh.

Method B

1. Weigh the clean tin plate panels.
2. The wax is sprayed by normal process on test panels positioned on horizontal surfaces of the vehicles such as decklid, engine hood or roof. Panels are to be attached by magnets.
3. After this procedure, the test panels must be aged for 2 hours at 50 +/- 2 °C.
4. Cool the test panels to 23 +/- 2 °C in a desiccator and reweigh.

Note: Method A has to be used if no tin plate panels are available.