

OILING OF STEEL SURFACES

Application

This method outlines the procedure for coating steel surfaces such as panels and coupons with oil films of reproducible thickness.

Apparatus Required

Dipping Tank

Shall be suitable for immersion of panels or coupons. The tank shall be so designed to expose a minimum of the oil solution to the atmosphere (to avoid loss of solvent by evaporation).

Mechanical Convection Oven

Must be capable of maintaining 50 +/- 2 °C.

Materials Required

Oil

ASTM No. 1:

Source:	Shell Mex & B. P. Ltd. Shell Mex House Strand W. C. 2	Or	Rudolf Fuchs Mineraloelwerk K. G. 68 Mannheim Friesenheimerstr, Germany
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Solvent

Toluene, reagent grade; CAUTION: low flash point.

Lint-Free Cloth

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 04 30	Revised	Editorial – no technical change A. Cockman
1989 12 21		

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Page 1 of 3

Procedure

Method A

Use Method A unless otherwise specified on the engineering document.

Preparation of Oiling Solutions

1. Blend the specified solution to the following ratio:

Oil Solution

	Oiling Grade	ASTM Oil No. 1	Toluene
1.	Light	3 % by volume	97 % by volume
2.	Normal	5 % by volume	95 % by volume
3.	Heavy	8 % by volume	92 % by volume

Cleaning and Coating the Steel Surface

1. Clean the steel surface with the lint-free cloth soaked with the solvent and then rinse steel surface with the same solvent.
2. Allow to dry at room temperature (23 +/- 2 °C).
3. Immediately after air drying, immerse the steel panel/part in the tank filled with one of the oil solutions, as outlined above, in accordance with the oil grade required by the applicable Engineering Specification.

Dip, vertically, in such a manner that after removal the solution drainage occurs across the shortest surface.
4. After immersion for 1 minute, remove the steel part from the solution.
5. Allow the steel part to drain in a vertical position for 10 minutes at room temperature and then suspend for 16 h at 50 +/- 2 °C in the oven.