BZ 150-11

OILING OF STEEL SURFACES

Application

This method outlines the procedure for coating steel surfaces such as lab-test panels with oil films of reproducible thickness.

Apparatus Required

Dipping Tank

Shall be suitable for immersion of lab-test panels. 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

Anticorit 4107 S:

Source: Fuchs Petrolub AG
68169 Mannheim
Friesenheimerstr. 19, Germany

Solvent

N-Hexan (altern. N-Heptan) 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	
2007 05 22	Revised	Changed Oil, Solvent + Oiling Grade	B. Ütrecht
2001 04 30	Revised	Editorial – no technical change	A. Cockman
1989 12 21			

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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	Anticorit 4107 S	N-Hexane
1.	Nominal oil film weight 1.25 +/- 0,25 g/m²	3% +/- 1% by volume	97% +/- 1% by volume
2.	Maximum oil film weight 3.00 +/- 0,30 g/m²	7% +/- 1% by volume	93% +/- 1% by volume

Cleaning and Coating the Steel Surface

1. Clean the steel surface with the lint-free cloth soaked with the solvent. Rinse both sides of the steel surface with the same solvent until no process traces remain on the surface.

2. Allow to dry at room temperature (23 +/- 2 °C) until the n-hexane has completely evaporated.

3. Immediately after air drying, immerse the steel panel 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.

6. Check the Oil Coating/Weight as specified by the Engineering Specification.

   A test panel prepared per para 1 + 2 is weighed on an analytic scale with a precision of 0.001 g. After oiling per para 3 – 5 weigh again. The oil coating in g/m² is derived from the weight difference in relation with the panel-dimensions. If the oil-weight deviates approx. 10% from the specified oil-weight, the panel can be used.

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