



Designation: D 1748 – 002

An American National Standard

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Standard Test Method for Rust Protection by Metal Preservatives in the Humidity Cabinet¹

This standard is issued under the fixed designation D 1748; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.
~~This test method reapproval.~~

~~This standard has been adopted approved for use by government agencies to replace Method 5310 of Federal Test Method Standard No 791 b, the Department of Defense.~~

¹ This test method is under the jurisdiction of ASTM Committee D02 on Petroleum Products and Lubricants and is the direct responsibility of Subcommittee D02.L0.03 on Corrosion Testing of Sheet Metal Processing Fluids.

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1. Scope

1.1 This test method is used for evaluating the rust-preventive properties of metal preservatives under conditions of high humidity.

1.2 The values stated in SI units are to be regarded as the standard except where the test apparatus or consumable parts are only available in other units. In such cases these will be regarded as standard. The values given in parentheses are for information only.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

A 109/A 109M Specification for Steel, Strip, Carbon, Cold-Rolled²

D 512 Test Methods for Chloride Ion in Water³

D 516 Test Method for Sulfate Ion in Water³

E 11 Specification for Wire-Cloth Sieves for testing Purposes⁴

E 323 Specification for Perforated-Plate Sieves for testing Purposes⁴

2.2 Federal Standards:⁵

QQ-S-698 Steel Sheet and Strip, Low Carbon

2.3 Military Standards:⁶

MIL-C-5646F Cloth, Airplane

MIL-C-15074E Corrosive Preventive Compound Finger Print Remover

2.4 Society of Automotive Engineers:⁷

SAE 1009C Tee Reducer, Bulkhead on Side, Flareless Tube

3. Summary of Test Method

3.1 Steel panels are prepared to a prescribed surface finish, dipped in the test oil, allowed to drain, and then suspended in a humidity cabinet at $48.9 \pm ^\circ\text{C}$ (120°F) for a specified number of hours. The oil fails or passes the test in accordance with the size and number of rust dots on the test surfaces of the panels.

² Annual Book of ASTM Standards, Vol 01.03.

³ Annual Book of ASTM Standards, Vol 11.01.

⁴ Annual Book of ASTM Standards, Vol 14.02.

⁵ Available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. DC 20402.

⁶ Available from Standardization Documents Order Desk, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

⁷ Available from British Standards Institute, 2 Park St., London, England W1A 2BS; Society of Automotive Engineers, 400 Commonwealth Dr., Warrendale, PA 15096.