



Designation: D7095 – 17

Standard Test Method for Rapid Determination of Corrosiveness to Copper from Petroleum Products Using a Disposable Copper Foil Strip¹

This standard is issued under the fixed designation D7095; 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.

INTRODUCTION

This test method is similar in nature to the Test Method **D130** test method, but involves three major differences. Firstly, a single-use copper foil strip is used in place of the Test Method **D130** multi-use copper strip. Secondly, a different polishing technique is used in preparing the copper foil strip, which uses a commercially available scouring-pad in place of the initial and final polishing techniques described in Test Method **D130**. Thirdly, this test method involves a shorter analysis time of 45 min for all product types as compared to the Test Method **D130** method requirements, which are longer; for example, two or three hours.

1. Scope*

1.1 This test method covers the determination of the corrosiveness to copper of aviation gasoline, aviation turbine fuel, automotive gasoline, natural gasoline, or other hydrocarbons having a vapor pressure no greater than 124 kPa (18 psi), cleaners (for example, Stoddard solvent), kerosine, diesel fuel, distillate fuel oil, lubricating oil, and other petroleum products.

1.2 The values stated in SI units are to be regarded as the standard.

1.2.1 *Exception*—The values in parentheses are provided 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 establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.* For specific warning statements, see **6.1**, **10.1.1**, and **Annex A2**.

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

¹ This test method is under the jurisdiction of ASTM Committee **D02** on Petroleum Products, Liquid Fuels, and Lubricants and is the direct responsibility of Subcommittee **D02.05** on Properties of Fuels, Petroleum Coke and Carbon Material.

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2. Referenced Documents

2.1 *ASTM Standards*:²

B152/B152M Specification for Copper Sheet, Strip, Plate, and Rolled Bar

D130 Test Method for Corrosiveness to Copper from Petroleum Products by Copper Strip Test

D396 Specification for Fuel Oils

D975 Specification for Diesel Fuel Oils

D1655 Specification for Aviation Turbine Fuels

D1838 Test Method for Copper Strip Corrosion by Liquefied Petroleum (LP) Gases

D4057 Practice for Manual Sampling of Petroleum and Petroleum Products

D4177 Practice for Automatic Sampling of Petroleum and Petroleum Products

D6615 Specification for Jet B Wide-Cut Aviation Turbine Fuel

E1 Specification for ASTM Liquid-in-Glass Thermometers

2.2 *ASTM Adjuncts*:

ASTM Copper Strip Corrosion Standard³

3. Summary of Test Method

3.1 A polished copper foil strip is immersed in a specific volume of the sample being tested and heated under conditions

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from ASTM International Headquarters. Request Adjunct No. **ADJD0130**. Names of suppliers in the United Kingdom can be obtained from Energy Institute, 61 New Cavendish St., London, W1M 8AR, United Kingdom. One Master Standard is held at Energy Institute for reference.

*A Summary of Changes section appears at the end of this standard