



Standard Test Method for Kerosene Retention of Asbestos¹

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1. Scope

1.1 This test method covers the determination of the kerosene retention capacity of asbestos fiber by filtering after mixing and measuring the volume of liquid retained by difference.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.3 **Warning**—*Breathing of asbestos dust is hazardous. Asbestos and asbestos products present demonstrated health risks for users and for those with whom they come into contact. In addition to other precautions, when working with asbestos-cement products, minimize the dust that results. For information on the safe use of chrysotile asbestos, refer to “Safe Use of Chrysotile Asbestos: A Manual on Preventive and Control Measures.”*²

1.4 *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 and health practices and determine the applicability of regulatory limitations prior to use. For a specific hazard warning, see 1.3.*

2. Referenced Documents

2.1 ASTM Standards:³

D1655 Specification for Aviation Turbine Fuels

D2590/D2590M Test Method for Sampling Chrysotile Asbestos

D2946 Terminology for Asbestos and Asbestos–Cement Products

D3879 Test Method for Sampling Amphibole Asbestos (Withdrawn 2009)⁴

E11 Specification for Woven Wire Test Sieve Cloth and Test Sieves

E177 Practice for Use of the Terms Precision and Bias in ASTM Test Methods

2.2 Other Standards:

US Federal Specifications, VV-K-211 d, Kerosene⁵

Canadian Government Specifications Board CAN 2-3.3-M85 Kerosene⁶

United Kingdom, Ministry of Defense Specification DEF-2403-A⁷

3. Terminology

3.1 **Definitions**—Refer to Terminology D2946.

4. Summary of Test Method

4.1 A slurry of asbestos fiber is formed by mixing in a known volume of kerosene. The slurry is then drained on a standard 177 μm [U.S. No. 80] screen as defined in Specification E11, and the kerosene that drains out in 15 min is measured. The quantity of kerosene retained is obtained by difference.

5. Significance and Use

5.1 The kerosene retention value is an indication of the degree of fiberization and of the absorptivity of a given grade of asbestos.

5.2 Since the retention of the fibrous fractions is much greater than that of the non-fibrous fractions, this test method may be used to compare the fibrous content of otherwise similar grades of asbestos.

¹ This test method is under the jurisdiction of ASTM Committee C17 on Fiber-Reinforced Cement Products and is the direct responsibility of Subcommittee C17.03 on Asbestos - Cement Sheet Products and Accessories.

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² Available from The Asbestos Institute, http://www.chrysotile.com/en/sr_use/manual.htm.

³ 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.

⁴ The last approved version of this historical standard is referenced on www.astm.org.

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

⁶ Available from The Secretary, Canadian General Standard Board, Ottawa, ONT, Canada K1A 1G6.

⁷ Available from Her Majesty's Stationery Office, London, England.