



Designation: D1118/D1118M – 95 (Reapproved 2017)

Standard Test Method for Magnetic Rating of Asbestos Fiber and Asbestos Textiles¹

This standard is issued under the fixed designation D1118/D1118M; 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.

1. Scope

1.1 This test method covers the procedure for the determination of the magnetic rating of asbestos fiber and asbestos textile products. This test method is used primarily for testing asbestos insulating materials.

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 specific safety hazard, see .*

1.5 *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 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.

2. Referenced Documents

2.1 ASTM Standards:³

D123 Terminology Relating to Textiles

D2100 Specification for Asbestos Textiles Used for Electrical Insulating Purposes

D2590 Test Method for Sampling Chrysotile Asbestos

D2946 Terminology for Asbestos and Asbestos-Cement Products

D2947 Test Method for Screen Analysis of Asbestos Fibers

D3879 Test Method for Sampling Amphibole Asbestos (Withdrawn 2009)⁴

E11 Specification for Woven Wire Test Sieve Cloth and Test Sieves

2.2 ASTM Adjuncts:

Metallic Analyzer Drawings⁵

3. Terminology

3.1 For definitions of other textile terms used in this test method, refer to Terminology D123. For terms relating to asbestos, refer to Terminology D2946.

3.2 Definitions:

3.2.1 *asbestos fiber, n*—The hydrous magnesium silicate serpentine mineral designated as chrysotile and having the empirical formula $\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4$.

3.2.2 *atmosphere for testing textiles, n—for asbestos*, air maintained at a relative humidity of $50 \pm 2\%$ at $70 \pm 2^\circ\text{F}$ [$21 \pm 1^\circ\text{C}$].

3.2.3 *magnetic rating (MR), n*—an empirical value reflecting the effect of the magnetic particles, such as magnetic iron compounds, in asbestos material as measured by a magnetic effect analyzer. It is not a quantitative measure of the magnetic particles in the material. — Magnetic rating is affected by the

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 ASTM International Headquarters. Order Adjunct No. ADJD1118. Original adjunct produced in 1986.