



Designation: C1096/C1096M – 07 (Reapproved 2019)

Standard Test Method for Determination of Wood Fiber in Asbestos Cement¹

This standard is issued under the fixed designation C1096/C1096M; 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 determination of the cellulose content of asbestos-cement products. Refer to **Note 1** and **Note 2**.

1.2 Before this test method can be used for the determination of other organic substances in asbestos-cement, it must be ascertained that accurate results can be obtained by correlation trials with known concentrations of the organic substances in question present in samples of asbestos-cement.

1.3 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.

1.4 **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

1.5 *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. See 1.4 for a specific safety warning.*

1.6 *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

C114 Test Methods for Chemical Analysis of Hydraulic Cement

D1193 Specification for Reagent Water

E11 Specification for Woven Wire Test Sieve Cloth and Test Sieves

2.2 ACS Standard:

Reagent Chemicals, American Chemical Society Specifications⁴

3. Significance and Use

3.1 The determination of wood fiber in asbestos-cement products is necessary because such fibers may be added when multi-wall paper bags containing the asbestos are included in the batch formulations, or cellulose may be added as a processing aid during the manufacture of the products.

3.2 Although moderate concentrations of wood fiber usually have a negligible effect on product durability and performance, higher concentrations can have deleterious effects on products exposed to moisture and thermal shocks.

4. Interferences

4.1 The presence of organic compounds such as surface-active processing aids and water-repellent substances that would produce CO₂ during the digestion steps of the procedure would probably affect results. Refer to **Note 1**.

4.2 The presence of organic pigments and organic polymeric fibers other than cellulose could also interfere and impair accuracy (**Note 2**).

5. Apparatus

5.1 *Sieve*, a 149 μ m (No. 100) sieve conforming to Specification E11.

5.2 *Drying oven*, ventilated, capable of maintaining 100 to 105°C [212 to 220°F].

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 Available from American Chemical Society, 1155 16th St., NW, Washington, DC.