



Standard Test Methods for Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete¹

This standard is issued under the fixed designation C472; 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 standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope

1.1 These test methods cover the physical testing of gypsum, gypsum plasters, and gypsum concrete.

1.2 The test methods appear in the following sections:

	Sections
Precautions for Physical Tests	4
Reagents and Materials	5
Free Water	6
Fineness	7
Normal Consistency of Gypsum Plaster	8
Normal Consistency of Gypsum Concrete	9
Setting Time	10
Setting Time (Temperature Rise Method)	11
Compressive Strength	12
Density	13

1.3 The values regarded as the standard are either in inch-pound units or SI (metric). The values stated first shall be regarded as the standard. Values following in parentheses are approximate and are provided for information purposes only.

1.4 The text of this standard references notes and footnotes which provide explanatory material. These notes and footnotes (excluding those in tables and figures) are not requirements of the standard.

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 and health practices and determine the applicability of regulatory limitations prior to use.* For a specific precautionary statement, see **X1.2.1**.

¹ These test methods are under the jurisdiction of ASTM Committee C11 on Gypsum and Related Building Materials and Systems and are the direct responsibility of Subcommittee C11.01 on Specifications and Test Methods for Gypsum Products.

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2. Referenced Documents

2.1 *ASTM Standards*:²

C11 Terminology Relating to Gypsum and Related Building Materials and Systems

C778 Specification for Sand

E11 Specification for Woven Wire Test Sieve Cloth and Test Sieves

3. Terminology

3.1 *Definitions*:

3.1.1 For useful definitions refer to Terminology **C11**.

4. Precautions for Physical Tests

4.1 Gypsum products are greatly affected by small amounts of impurities introduced by careless laboratory manipulation. In order to obtain accurate results, it is absolutely essential to observe the following precautions:

4.1.1 Keep all apparatus thoroughly clean. Remove all traces of set plaster.

NOTE 1—For mixing pastes and mortars, a 500-ml rubber dental bowl is a convenience.

NOTE 2—Use care when drying gypsum, gypsum plasters, or gypsum concrete. Exceeding the specified drying temperatures may calcine the specimens, which will cause inaccurate test results.

5. Reagents and Materials

5.1 *Distilled or Deionized Water*—free of chlorides and sulfates at a temperature of $21 \pm 1^\circ\text{C}$ ($70 \pm 2^\circ\text{F}$).

5.2 *Standard Sand*— Specification **C778**, 20–30 sand.

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.