



Designation: C 1077 – 03a

Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation¹

This standard is issued under the fixed designation C 1077; 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 Department of Defense.

1. Scope*

1.1 This practice identifies and defines the duties, responsibilities, and minimum technical requirements of testing laboratory personnel and the minimum technical requirements for laboratory equipment utilized in testing concrete and concrete aggregates for use in construction.

1.2 This practice provides criteria for the evaluation of the capability of a testing laboratory to perform designated ASTM test methods on concrete and concrete aggregates. It can be used by an accrediting agency in the accreditation of a laboratory or by other parties to determine if the laboratory is qualified to conduct the specified tests.

1.3 If the laboratory requires external technical services to conduct tests, the external agency shall be subject to separate evaluation.

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.*

2. Referenced Documents

2.1 ASTM Standards:²

- C 29/C 29M Test Method for Bulk Density (Unit Weight) and Voids in Aggregate
- C 31/C 31M Practice for Making and Curing Concrete Test Specimens in the Field
- C 39/C 39M Test Method for Compressive Strength of Cylindrical Concrete Specimens
- C 40 Test Method for Organic Impurities in Fine Aggregates for Concrete
- C 42/C 42M Test Method for Obtaining and Testing Drilled

- Cores and Sawed Beams of Concrete
- C 70 Test Method for Surface Moisture in Fine Aggregate
- C 78 Test Method for Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)
- C 87 Test Method for Effect of Organic Impurities in Fine Aggregate on Strength of Mortar
- C 88 Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
- C 116 Test Method for Compressive Strength of Concrete Using Portions of Beams Broken in Flexure³
- C 117 Test Method for Material Finer than 75- μ m (No. 200) Sieve in Mineral Aggregates by Washing
- C 123 Test Method for Lightweight Particles in Aggregate
- C 125 Terminology Relating to Concrete and Concrete Aggregates
- C 127 Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
- C 128 Test Method for Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate
- C 131 Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
- C 136 Test Method for Sieve Analysis of Fine and Coarse Aggregates
- C 138/C 138M Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
- C 142 Test Method for Clay Lumps and Friable Particles in Aggregates
- C 143/C 143M Test Method for Slump of Hydraulic Cement Concrete
- C 157/C 157M Test Method for Length Change of Hardened Hydraulic-Cement, Mortar, and Concrete
- C 172 Practice for Sampling Freshly Mixed Concrete
- C 173/C 173M Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method
- C 174 Test Method for Measuring Thickness of Concrete Elements Using Drilled Concrete Cores
- C 192/C 192M Practice for Making and Curing Concrete

¹ This practice is under the jurisdiction of ASTM Committee C09 on Concrete and Concrete Aggregates and is the direct responsibility of Subcommittee C09.98 on Evaluation of Laboratories.

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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 Withdrawn

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