



Designation: C 1077 – 00

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:

- C 29/C 29M Test Method for Bulk Density ("Unit Weight") and Voids in Aggregate²
- C 31 Practice for Making and Curing Concrete Test Specimens in the Field²
- C 39 Test Method for Compressive Strength of Cylindrical Concrete Specimens²
- C 40 Test Method for Organic Impurities in Fine Aggregates for Concrete²
- C 42 Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete²
- C 70 Test Method for Surface Moisture in Fine Aggregate²
- C 78 Test Method for Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)²

- C 87 Test Method for Effect of Organic Impurities in Fine Aggregate on Strength of Mortar²
- C 88 Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate²
- C 116 Test Method for Compressive Strength of Concrete Using Portions of Beams Broken in Flexure²
- C 117 Test Method for Material Finer than 75- μ m (No. 200) Sieve in Mineral Aggregates by Washing²
- C 123 Test Method for Lightweight Pieces in Aggregate²
- C 125 Terminology Relating to Concrete and Concrete Aggregates²
- C 127 Test Method for Specific Gravity and Absorption of Coarse Aggregate²
- C 128 Test Method for Specific Gravity and Absorption of Fine Aggregate²
- C 131 Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine²
- C 136 Test Method for Sieve Analysis of Fine and Coarse Aggregates²
- C 138 Test Method for Unit Weight, Yield, and Air Content (Gravimetric) of Concrete²
- C 142 Test Method for Clay Lumps and Friable Particles in Aggregates²
- C 143 Test Method for Slump of Hydraulic Cement Concrete²
- C 157 Test Method for Length Change of Hardened Hydraulic Cement Mortar and Concrete²
- C 172 Practice for Sampling Freshly Mixed Concrete²
- C 173 Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method²
- C 174 Test Method for Measuring Length of Drilled Concrete Cores²
- C 192 Practice for Making and Curing Concrete Test Specimens in the Laboratory²
- C 215 Test Method for Fundamental Transverse, Longitudinal and Torsional Frequencies of Concrete Specimens²
- C 227 Test Method for Potential Alkali Reactivity of Cement-Aggregate Combinations (Mortar-Bar Method)²
- C 231 Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method²
- C 232 Test Methods for Bleeding of Concrete²

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 *Annual Book of ASTM Standards*, Vol 04.02.