



Designation: D 6023 – 9602

Standard Test Method for Unit Weight, Yield, Cement Content, and Air Content (Gravimetric) of Controlled Low Strength Material (CLSM)¹

This standard is issued under the fixed designation D 6023; 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 explains determination of the mass per cubic foot (cubic meter) of freshly mixed Controlled Low Strength Material (CLSM) and gives formulas for calculating the yield, cement content, and the air content of the CLSM. This test method is based on Test Method C 138 for Concrete.

NOTE 1—Unit Weight is the traditional terminology used to describe the property determined by this test method. The proper term is density. It has also been termed unit mass or bulk density. To be compatible with terminology used in the concrete industry, unit weight is referenced in this test method.

1.2 All observed and calculated values shall conform to the guidelines for significant digits and rounding established in Practice D 6026.

1.2.1 The method used to specify how data are collected, calculated, or recorded in this standard is not directly related to the accuracy to which the data can be applied in design or other uses, or both. How one applies the results obtained using this standard is beyond its scope.

1.3 The values stated in SI units are to be regarded as standard. The inch-pound equivalents are shown for information only.

1.34 CLSM is also known as flowable fill, controlled density fill, soil-cement slurry, soil-cement grout, unshrinkable fill, “K-Krete,” and other similar names.

1.45 *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:*

¹ This test method is under the jurisdiction of ASTM Committee D-18 on Soil and Rock and is the direct responsibility of Subcommittee D18.15 on Stabilization with Admixtures.

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