



# Standard Terminology of Mortar and Grout for Unit Masonry<sup>1</sup>

This standard is issued under the fixed designation C1180; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope\*

1.1 This terminology covers terms, definitions of terms, descriptions of terms, nomenclature, and explanations of abbreviations, acronyms, and symbols specifically associated with standards under the jurisdiction of ASTM Committee C12 on Mortars and Grouts for Unit Masonry.

1.2 The definitions and descriptions of terms in this terminology pertain to Test Methods [C780](#), [C1019](#), [C1148](#), [C1324](#), and [C1403](#); Specifications [C144](#), [C270](#), [C404](#), [C476](#), [C887](#), [C1142](#), and [C1384](#); Practice [C946](#); and Guide [C1586](#).

## 2. Referenced Documents

### 2.1 ASTM Standards:<sup>2</sup>

- [C144 Specification for Aggregate for Masonry Mortar](#)
- [C270 Specification for Mortar for Unit Masonry](#)
- [C404 Specification for Aggregates for Masonry Grout](#)
- [C476 Specification for Grout for Masonry](#)
- [C780 Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry](#)
- [C887 Specification for Packaged, Dry, Combined Materials for Surface Bonding Mortar](#)
- [C946 Practice for Construction of Dry-Stacked, Surface-Bonded Walls](#)
- [C1019 Test Method for Sampling and Testing Grout](#)
- [C1142 Specification for Extended Life Mortar for Unit Masonry](#)
- [C1148 Test Method for Measuring the Drying Shrinkage of Masonry Mortar](#)
- [C1232 Terminology of Masonry](#)
- [C1324 Test Method for Examination and Analysis of Hardened Masonry Mortar](#)
- [C1384 Specification for Admixtures for Masonry Mortars](#)

<sup>1</sup> This terminology is under the jurisdiction of ASTM Committee C12 on Mortars and Grouts for Unit Masonry and is the direct responsibility of Subcommittee C12.08 on Terminology.

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For Annual Book of ASTM Standards volume information, refer to the standard's Document Summary page on the ASTM website.

[C1403 Test Method for Rate of Water Absorption of Masonry Mortars](#)

[C1586 Guide for Quality Assurance of Mortars](#)

## 3. Terminology

3.1 The definitions in this terminology are specific to mortar and grout. For terminology specific to (1) clay masonry units; (2) concrete masonry units; (3) autoclaved aerated concrete masonry units; (4) roofing tile units; and (5) masonry, see Terminology [C1232](#).

### 3.2 Definitions:

**admixture**, *n*—substance other than the Specification [C270](#) prescribed materials of water, aggregate, and cementitious materials that is added to a masonry mortar as an ingredient to improve one or more chemical or physical properties of the conventional masonry mortar.

**aggregates**, *n*—a granular mineral material such as natural sand, manufactured sand, gravel, crushed stone, and air cooled blast furnace slag.

**cementitious material**, *n*—Committee C12 standards for mortar and grout consider the following as cementitious materials: Hydraulic cements, pozzolans, hydrated lime, lime putty, and ground granulated blast furnace slag.

DISCUSSION—Hydraulic cements (such as portland cement, blended cement, masonry cement, and mortar cement) react with water to harden and will do so under water. Pozzolans (such as coal fly ash, raw, or calcined natural pozzolans) react with lime in the presence of moisture. Hydrated lime and lime putty react with carbon dioxide from the air. Ground granulated blast furnace slag, blended cements, and some pozzolans may exhibit both hydraulic and pozzolanic properties.

**compressive strength**, *n*—the maximum compressive load which a specimen will support divided by the cross-sectional area of the specimen.

**durability**, *n*—the ability of a material to resist weathering action, chemical attack, abrasion, and other conditions of service.

**flow**, *n*—a laboratory measured mortar property that indicates the percent increase in diameter of the base of the truncated cone of mortar when it is placed on a flow table, and mechanically raised and dropped specified times under specified conditions.

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

**gradation**, *n*—the particle size distribution of aggregate as determined by separation with standard screens. Gradation of aggregate is expressed in terms of the individual percentages passing standard screens. Sieve analysis and screen analysis are synonyms when referring to gradation of aggregate.

**grout**, *n*—a mixture of cementitious materials, aggregates, water, with or without admixtures, initially produced to pouring consistency without segregation. Requirements for grout are contained in Specification C476.

**mortar**, *n*—a mixture consisting of cementitious materials, fine aggregate, water, with or without admixtures, that is used to construct unit masonry assemblies.

**mortar bond or grout bond**, *n*—adhesion between mortar or grout and masonry units, reinforcement, or connectors.

**repoint**, *v*—to remove defective mortar and place properly prehydrated plastic mortar into mortar joints.

**shrinkage**, *n*—a decrease in volume due to chemical reaction or drying.

**tuck point**, *v*—(1) (*historical*) to point masonry with a flush mortar joint that approximates the color of the masonry units and then add a mortar strip of contrasting color such that a narrow mortar joint width is simulated. (2) regional term for repoint.

**water retention**, *n*—the measured physical property of a plastic mortar indicating its ability, under suction, to retain its mixing water.

**water retentivity**, *n*—a characteristic of plastic mortar describing its ability to retain its mixing water.

**workability**, *n*—the ability of mortar to be easily placed and spread.

### 3.3 Definitions of Terms Specific to Indicated Standards:

**admixed mortar**, *n*—masonry mortar that deviates from those combinations of materials recognized by Specification C270 in that it also contains an admixture. C1384

**bond enhancer**, *n*—admixture incorporated into a masonry mortar to increase the bond strength between the mortar and the masonry unit. C1384

**mortar, extended life**, *n*—a product consisting of cementitious materials, aggregate, water, and set-control admixtures which are measured and mixed at a central location using weight-or-volume-control equipment. This mortar as deliv-

ered to a construction site shall be usable for a period in excess of 2½ h. C1142

**mortar, surface bonding**, *n*—a product designed to secure masonry units to each other by means of an exterior coating consisting of cementitious materials, glass fiber reinforcement with or without inorganic fillers, or organic modifiers in a prepackaged form requiring only the addition of water prior to application. C887

**reference mortar**, *n*—mortar of the same composition as an admixed mortar except that the reference mortar does not include the admixture and may contain a different amount of water to obtain an equivalent flow or penetration as the admixed mortar. C1384

**sample, batch mixer**, *n*—mortar obtained during or immediately after the discharge of the mortar from the batch mixer. C780

**sample, disturbed**, *n*—any plastic mortar test sample which is taken at some time after mixing and bulk sampling, that is further remixed or molded immediately prior to test, or both. C780

**sample, mortar board**, *n*—plastic mortar obtained from the mortar board after some established time period from the end of mixing, and before retempering.

DISCUSSION—Retempered mortarboard samples are those obtained from the mortarboard after retempering. Since mortar on a mason's mortarboard is disturbed by the activity of the mason, samples from a mason's mortarboard shall be so identified to differentiate them from samples taken from a mortarboard used exclusively for test purposes. C780

**sample, undisturbed**, *n*—any plastic mortar test sample molded immediately after mixing and sampling. C780

DISCUSSION—This sample is allowed to set on a vibration-free surface until tested.

**set accelerator**, *n*—admixture incorporated into a masonry mortar to shorten the time of setting of a mortar. C1384

**set retarder**, *n*—admixture incorporated into a masonry mortar to lengthen the time of setting of a mortar. C1384

**water repellent**, *n*—admixture incorporated into a masonry mortar to decrease the rate of water absorption of the hardened mortar. C1384

**workability enhancer**, *n*—admixture incorporated into a masonry mortar to increase the ease of being worked and used. A workability enhancer will increase the board life and maintain the water retention of a mortar. C1384

## SUMMARY OF CHANGES

Committee C12 has identified the location of selected changes to this standard since the last issue (C1180 – 07) that may impact the use of this standard. (Approved Dec. 1, 2010.)

- (1) Removed reference to C952, which is under the jurisdiction of Committee C15.
- (2) Removed C43 and C1209 due to their merger into Terminology **C1232**.
- (3) Added language in **3.1** to refer to proper standards for terminology of masonry units.
- (4) Added parts of speech and reformatted: *disturbed sample*, *undisturbed sample*, *batch mixer sample*, *extended life mortar*, *mortarboard sample*, and *surface bonding mortar*.

*This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.*

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