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Standard Terminology of Mortar and Grout for Unit Masonry[1]

This standard is issued under the fixed designation C 1180; 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 terminology contains 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 for Unit Masonry.

1.2 The definitions and descriptions of terms in this terminology pertain to Test Methods C 780, C 952, C 1019, and C 1148 and Specifications C 144, C 270, C 404, C 476, C 887, C 1142, and C 1384.

2. Referenced Documents

2.1 *ASTM Standards:* [2]

C 144 Specification for Aggregate for Masonry Mortar
C 270 Specification for Mortar for Unit Masonry
C 404 Specification for Aggregates for Masonry Grout
C 476 Specification for Grout for Masonry
C 780 Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry
C 887 Specification for Packaged, Dry, Combined Materials for Surface Bonding Mortar
C 952 Test Method for Bond Strength of Mortar to Masonry Units
C 1019 Test Method of Sampling and Testing Grout
C 1142 Specification for Extended Life Mortar for Unit Masonry
C 1148 Test Method for Measuring the Drying Shrinkage of Masonry Mortar
C 1384 Specification for Modifiers for Masonry Mortars

3. Terminology

3.1 *Definitions:*

admixed mortar, *n*—masonry mortar that deviates from those combinations of materials recognized by Specification C 270 in that it also contains an admixture. **C 1384**

admixture, *n*—substance other than the Specification C 270 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. **C 1384**

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

bond enhancer, *n*—admixture incorporated into a masonry mortar to increase the bond strength between the mortar and the masonry unit. **C 1384**

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 furnance 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 furnance 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.

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

[1] 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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[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.

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

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pouring consistency without segregation. Requirements for grout are contained in Specification C 476.

mortar, *n*—a mixture consisting of cementitious materials, fine aggregate, water, and 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.

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. **C 1384**

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

set accelerator, *n*—admixture incorporated into a masonry mortar to shorten the time of setting of a mortar. **C 1384**

set retarder, *n*—admixture incorporated into a masonry mortar to lengthen the time of setting of a mortar. **C 1384**

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 repellent, *n*—admixture incorporated into a masonry mortar to decrease the rate of water Absorption of the hardened mortar. **C 1384**

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

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. **C 1384**

3.2 *Definitions of Terms Specific to Indicated Standards:*

batch mixer samples—those obtained during or immediately after the discharge of the mortar from the batch mixer. **C 780**

disturbed sample—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. **C 780**

extended life mortars—mortar 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 delivered to a construction site shall be usable for a period in excess of 2½ h. **C 1142**

mortar board samples—those obtained from the mortar board after some established time period from the end of mixing, and before retempering. Retempered mortar board samples are those obtained from the mortar board after retempering. Since mortar on a mason's mortar board is disturbed by the activity of the mason, samples from a mason's mortar board shall be so identified to differentiate them from samples taken from a mortar board used exclusively for test purposes. **C 780**

surface bonding mortar—a product containing hydraulic cement, glass fiber reinforcement with or without inorganic fillers, or organic modifiers in a prepackaged form requiring only the addition of water prior to application. **C 887**

undisturbed sample—any plastic mortar test sample molded immediately after mixing and sampling that is allowed to set on a vibration-free surface until tested. **C 780**

SUMMARY OF CHANGES

Committee C12 has identified the location of the following changes to this standard since C 1180–03 that may impact the use of this standard.

(1) A single definition for cementitious materials has been added to replace the previous two definitions.

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