

Standard ASTM Tests performed by NRMCA Research Laboratory

Aggregate Tests

- C29 Unit Weight and Voids in Aggregate
- C40 Organic Impurities in Fine Aggregates for Concrete
- C70 Surface Moisture in Fine Aggregate
- C87 Organic Impurities in Fine Aggregates on Strength of Mortar
- C88 Soundness of Aggregates by use of Sodium Sulfate or Magnesium Sulfate
- C117 Materials Finer than No.200 sieve in Mineral Aggregates by Washing
- C123 Light Weight Pieces in Aggregates
- C127 Specific Gravity and Absorption of Coarse Aggregate
- C128 Specific Gravity and Absorption of Fine Aggregate
- C131 Degradation of small-Size Coarse Aggregate by the L.A Abrasion Machine
- C136 Sieve Analysis of Fine and Coarse Aggregate
- C142 Clay Lumps and Friable Particles
- C227 Alkali Reactivity, Potential of Cement Aggregate Combinations
- C566 Total Evaporable Moisture Content of Aggregate by Drying
- C641 Staining Materials in Lightweight Concrete Aggregates
- C1137 Degradation of Fine Aggregate due to Attrition
- C1252 Uncompacted Void Content of Fine Aggregate
- C1260 Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)
- C1293 Determination of Length Change of Concrete Due to Alkali-Silica Reaction
- D2419 Sand Equivalent Value of Soils and Fine Aggregate

Concrete Tests

- C31 Concrete Test Specimens, Making and Curing in the Field
- C39 Compressive Strength of Cylindrical Concrete Specimens
- C42 Drilled Cores and Sawed Beams of Concrete, Obtaining and testing
- C78 Flexural Strength of Concrete (Simple Beam, Third Point Loading)
- C116 Compressive Strength of Concrete Using Portions of Beams Broken in Flexure
- C138 Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
- C143 Slump of Hydraulic Cement Concrete
- C157 Length Change of Hardened Hydraulic-Cement Mortar and Concrete
- C172 Sampling Freshly Mixed Concrete
- C173 Air Content of Freshly Mixed Concrete by the Volumetric Method
- C174 Length of Drilled Concrete Cores, Measuring
- C192 Concrete Test Specimens, Making and Curing in the Laboratory
- C215 Fundamental Transverse, Longitudinal, and Torsional Frequencies of Concrete Specimens
- C231 Air Content of Freshly Mixed Concrete by the Pressure Method
- C232 Bleeding of Concrete
- C233 Air-Entraining Admixtures for Concrete
- C311 Fly Ash or Natural Pozzolans, Sampling and Testing, for Use as Mineral Admixture in Portland-Cement Concrete
- C341 Length Change of Drilled or Sawed Specimens of Mortar and Concrete
- C360 Ball Penetration in Freshly Mixed Hydraulic Cement Concrete
- C403 Time of Setting of Concrete Mixtures by Penetration Resistance
- C441 Effectiveness of Mineral Admixtures or Ground Blast-Furnace Slag in Preventing Excessive Expansion of Concrete Due to Alkali-Silica Reaction
- C457 Microscopical Determination of Parameters of the Air-Void System in Hardened Concrete
- C469 Static Modulus of Elasticity and Poisson's Ratio of Concrete in Compression
- C490 Use of Apparatus for the Determination of Length Change of Hardened Cement Paste, Mortar, and Concrete
- C496 Splitting Tensile Strength of Cylindrical Concrete Specimens

- C617 Capping Cylindrical Concrete Specimens
- C642 Specific Gravity, Absorption, and Voids in Hardened Concrete
- C666 Resistance of Concrete to Rapid Freezing and Thawing
- C672 Scaling Resistance of Concrete Surfaces Exposed to Deicing Chemicals (Available from Sept. 2007)
- C805 Rebound Number of Hardened Concrete
- C827 Change in Height at Early Ages of Cylindrical Specimens, Cementitious Mixtures
- C873 Compressive Strength of Cylinders Cast in Place in Cylindrical Molds
- C1064 Temperature of Freshly Mixed Portland-Cement Concrete
- C1152 Acid-Soluble Chloride in Mortar and Concrete
- C1202 Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration
- C1231 Use of Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders
- C1556 Apparent Chloride Diffusion of Cementitious Mixtures by Bulk Diffusion
- C1567 ASR mortar bar test for evaluating supplementary cementitious materials
- C1585 Rate of Absorption of Water by Concrete (Sorptivity test)

Cement Tests

Mortar Mix (flow, strength at 7, 28 days)

- C109 Compressive Strength of Hydraulic Cement Mortars (2-in Cube Specimens)
- C150 Specification for Portland Cement
- C184 Fineness of Hydraulic Cement by the No. 100 and No. 200 Sieves
- C185 Air Content of Hydraulic Cement Mortar
- C187 Normal Consistency of Hydraulic Cement
- C188 Density of Hydraulic Cement
- C191 Time of Setting of Hydraulic Cement by Vicat Needle
- C204 Fineness of Hydraulic Cement by Air Permeability Apparatus
- C305 Mechanical Mixing of Hydraulic Cement Pastes and Mortars of Plastic Consistency
- C359 Early Stiffening of Portland Cement (Mortar Method)
- C430 Fineness of Hydraulic Cement by the No. 325 Sieve
- C451 Early Stiffening of Portland Cement (Paste Method)
- C563 Optimum SO₃ in Hydraulic Cement Using 24-h Compressive Strength
- C596 Drying Shrinkage of Mortar Containing Portland Cement
- C786 Fineness of Hydraulic Cement and Raw Materials by the No. 50, No. 100, and No. 200 Sieves by the Wet Method
- C807 Time of Setting of Hydraulic Cement Mortar by Modified Vicat Needle
- C917 Evaluation of Cement Strength Uniformity from a Single Source
- C1012 Length Change of Hydraulic-Cement Mortars Exposed to a Sulfate Solution
- C1038 Expansion of Portland Cement Mortar Bars Stored in Water
- C1437 Flow of Mortar
- C1506 Water Retention