ASTM Standards for Erosion and Sediment Control

Reference No.	Title	Scope	Other Standards Referenced
Terminology			
D653-01	Standard Terminology Relating to Soil, Rock, and Contained Fluids		
Gabions			
A974-97	Standard Specification for Welded Wire Fabric Gabions and Gabion Mattresses (Metallic-Coated or Polyvinyl Chloride (PVC) Coated)	This specification covers gabions and gabion mattresses produced from metallic-coated welded wire fabric, and metallic-coated wire for spiral binders, lacing wire, and stiffeners used to assemble the product. The metallic-coated fabric may be polyvinyl chloride (PVC) coated after fabrication. The spiral binders, lacing wire, and stiffeners may be PVC coated after metallic coating. olyvinyl chloride hereinafter will be designated as PVC	A90/A90M;A185;A370;A428;A461;A809;A853;A856/A856M;A902;B117;D638;D746;D792;D1242;D1499;D2240;G23
A975-97	Standard Specification for Double-Twisted Hexagonal Mesh Gabions and Revet Mattresses (Metallic-Coated Steel Wire or Metallic-Coated Steel Wire with Poly(Vinyl Chloride) (PVC) Coating)	This specification covers gabions and revet matresses produced from double-twisted metallic-coated wire mesh, and metallic-coated wire for lacing wire, stiffeners, and fasteners used for manufacturing, assembling, and installation of the product. This specification also covers gabions and revet mattresses in which the wire mesh, lacing wire, and stiffeners are poly(vinyl chloride) (PVC) coated after the metallic coating	A90/A90M;A313;A370;A428;A461;A764;A809;A856/A856M;A902;B117;D412;D746;D792;D1242;D1499;D2240;G23
Soils			
D698-00a	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3))	This test method covers laboratory compaction procedures used to determine the relationship between water content and dry unit weight of soils (compaction curve) compacted in a 4 or 6-in. (101.6 or 152.4-mm) diameter mold with a 5.5-lbf (24.4-N) rammer dropped from a height of 12	C127;C136;D422;D653;D854;D1557;D2168;D2216;D2487;D2488;D3740;D4220;D4253;D4718;D4753;D4914;D5030;D6026;E1;E11;E177;E319;E691;IEEE/ASTM SI 10
D1140-00	Standard Test Methods for Amount of Material in Soils Finer Than the No. 200 (75-um) Sieve	These test methods cover determination of the amount of material finer than a 75-um (No. 200) sieve by washing.	C702;D75;D422;D2216;D2487;D3740;D4753;D6026;E11;E145;E177;E691
D2487-00	Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)	This standard describes a system for classifying mineral and organo-mineral soils for engineering purposes based on laboratory determination of particle-size characteristics, liquid limit, and plasticity index and shall be used when precise classification is required.	C117;C136;C702;D420;D421;D422;D653;D1140;D2216;D2217;D2488;D4083;D4318;D4427;E11
D4221-99	Standard Test Method for Dispersive Characteristics of Clay Soil by Double Hydrometer	This test method, when used in conjunction with a test performed by Method D422 on a duplicate soil sample, provides an indication of the natural dispersive characteristics of clay soils (1).	D422;D653;D1193;D2216;D3740;D4318;D4647;D4753;E1;E11;E100;E145
D4318-00	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils	These test methods cover the determination of the liquid limit, plastic limit, and the plasticity index of soils as defined in Section 3 on Termninology.	C702;D75;D420;D653;D1241;D2216;D2487;D3282;D3740;D4753;D6026;E11;E177;E691
D4647-93(1998)e1	Standard Test Method for Identification and Classification of Dispersive Clay Soils by the Pinhole Test	This test method presents a direct, qualitative measurement of the dispersibility and consequent colloidal erodibility of clay soils by causing water to flow through a small hole punched in a specimen. This test method is complemented by Test Method D4221.	D422;D698;D2216;D2487;D2488;D3740;D4221;D4318;D4753
D6711-01	Practice for Specifying Rock to Fill gabions, Revet Mattresses, and gabion Mattresses	This practice covers the sizes and quality of rock to fill gabions and mattresses. The term mattress as used in this standard shall include the terminology of gabion mattresses and revet mattresses used in Specifications A 974 and A 975.	
D5195-91(1996)	Standard Test Method for Density of Soil and Rock In-Place at Depths Below the Surface by Nuclear Methods	This test method covers the calculation of the density of soil and rock by the attenuation of gamma radiation, where the gamma source and the gamma detector are placed at the desired depth in a bored hole lined by an access tube.	D1452;D1587;D2113;D2216;D2922;D2937;D4428/D4428M;D5220
Rock/Riprap			
D4992-94 (2001)	Standard Practice for Evaluation of Rock to be Used for Erosion Control	This practice covers the evaluation of rock to be used for erosion control. The complexity and extent of this evaluation will be governed by the size and design requirements of the individual project, the quantity and quality of rock required, and the potential risk for property damage or loss of human life.	C88;C127;C294;C295;C535;D653;D653;D3967;D5121;D5240;D5312;D5313
D5313-92(1997)	Standard Test Method for the Evaluation of Durability of Rock for Erosion Control Under Wetting and Drying Conditions.	This test method covers procedures for evaluating the durability of rock for erosion control when exposed to wetting and drying conditions.	D4492;D5121
D5519-94 (2001)	Standard Test Method for Particle Size Analysis of Natural and Man-Made Riprap Materials	This test method covers the particle size and mass analysis of natural and man-made riprap and related materials, including filter stone or coarse bedding materials.	C136;D422;D653;D3740;D4992;D5240;D5312;E11

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Reference No.	Title	Scope	Other Standards Referenced
D6092-97e1	Standard Practice for Specifying Standard Sizes of Stone For Erosion Control	This guide covers size designations and maximum ranges in mass or graduation for standard sizes for riprap, spalls, or bedding, or both, used for slope protection of dam embankments, streambank erosion control, bridge piers and abutments. Sizes used for outer harbor structures such as breakwalls, revetments, confined diked disposal structures (heretofore described as armor stone, cover stone, or dimension stone) for which stone sizes range between 5 and 25 tons, or that require cut dimensions for layed up structures are beyond the scope of this guide.	D653;D4992;D5519
Geosynthetics			
D4354-99	Standard Practice for Sampling of Geosynthetics for Testing	This practice covers three procedures for the sampling of geosynthetics for testing. This practice requires that instructions on taking laboratory samples and test specimens be part of every test method for geosynthetics.	D123;D4271;D4439
D4355-99	Standard Test Method for Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus)	This test method covers the determination of the deterioration in tensile strength of geotextiles by exposure to ultraviolet light and water.	D123;D1682;D1898;D4439;G26;G113;G151;G155
D4439-01	Standard Teminology for Geosynthetics	geosynthetics terminology of	
D4491-99a	Standard Test Methods for Water Permeability of Geotextiles by Permittivity	These test methods provide procedures for determining the hydraulic conductivity (water permeability) of geotextiles in terms of permittivity under standard testing conditions, in the uncompressed state. Included are two procedures: the constant head method and the falling head method.	D123;D653;D4439;D5199;E691
D4632-91(1996)	Standard Test Method for Grab Breaking Load and Elongation of Geotextiles	This test method is an index test which provides a procedure for determining the breaking load (grab strength) and elongation (grab elongation) of geotextiles using the grab method. This test method is not suitable for knitted fabrics and alternate test methods should be used. While useful for quality control and acceptance testing for a specific fabric structure, the results can only be used comparatively between fabrics with very similar structures, because each different fabric structure performs in a unique and characteristic manner in this test. The grab test methods does not provide all the information needed for all design applications and other test methods should be used.	D76;D123;D461;D1682;D1776;D2905;D4354;D4439
D4751-99a	Standard Test Method for Determining Apparent Opening Size of a Geotextile	This test method is used to determine the apparent opening size (AOS) of a geotextile by sieving glass beads through a geotextile	C136;D123;D1776;D4238;D4354;D4439;E11
D4833-00e1	Standard Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products	This test method is used to measure the index puncture resistance of geotextiles, geomembranes, and related products	D76;D123;D1776;D2905;D4354;D4439
Fabric Formed Concrete			
D6449-99	Standard Test Method for Flow of Fine Aggregate Concrete for Fabric Formed Concrete (Flow Cone Method)	This test method covers a procedure, used both in the laboratory and in the field, for determining the time of efflux of a specified volume of the fine aggregate concrete through a standardized flow cone and used for fabric formed concrete (FFC); however, the test method may also be used for other fluid concrete	C33;C39;C94;C109/C109M;C1064
D6685-01	Standard Guide for the Selection of Test Methods for Fabrics Used for Fabric Formed Concrete (FFC)	This guide lists ASTM standards available for the testing evaluation of fabrics used to form fine aggrgate concrete.	D4354;D4355;D4439;D4486;D4491;D4533;D4595;D4751;D4759;D4873;D4884;D5261;D5321
Rolled Erosion Control Products			
D6525-00	Standard Test Method for Measuring Nominal Thickness of Permanent Rolled Erosion Control Products	This test method is used to measure the nominal thickness of permanent rolled erosion control products.	D1777;D4354;D4439;D5199
Silt Fence			
D6461-99	Standard Specification for Silt Fence Materials	This specification covers requirements and test methods for geotextile fabrics and associated components used in temporary silt fence applications. This is a material purchasing specification based on AASHTO M288	D123;D276;D4354;D4355;D4439;D4491;D4632;D4751;D4759;D4873;D5141;AASHTO M288-96
D6462-99	Standard Practice for Silt Fence Installation	This practice covers common installation requirements for temporary silt fence applications. This practice is based on AASHTO M288	D4632;D6461;AASHTO M288-96

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Turf Reinforcement Mats			
D6454-99	Standard Test Methods for Determining the Short Term Compression Behavior of Turf Reinforcement Mats (TRMs)	The test method establishes the procedures for evaluation of the deformations of a turf reinforcement mat (TRM) under short-term compressive loading. This test method is strictly an index test method to be used to verify the compressive strength consistency of a given manufactured geosynthetic. Results from this test method should not be considered an indication of actual or long-term performance of the TRM in field applications.	D4354;D4439;D4716;D5199
D6524-00	Standard Test Method for Measuring the Resiliency of Turf Reinforcement Mats (TRMs)	This test method is used to measure the resiliency or recovery of Turf reinforcement Mats (TRMs) after they have been subjected to three cycles of loading at 698 kPa (100 psi) for 1 min/per cycle.	D123;D1776;D1777;D4354;D4439;D5199
D6566-00	Standard Test Method for Measuring Mass per Unit Area of Turf Reinforcement Mats	This test mmethod covers an index to the determination of mass per per unit area of all Turf Reinforcement Mats.	D123;D1776;D4354;D4439;D5261. ISO/DIS 9864-1990
D6567-00	Standard Test Method for Measuring Light Penetration of a Turf Reinforcement Mat (TRM)	This test method covers measuring the nominal amount of light that penetrates through a Turf Reinforcement Mat.	D123;D1776;D4354;D4439
Erosion Control Blankets			
D6459-99	Standard Test Method for Determination of Erosion Control Blanket (ECB) Performance in Protecting Hillslopes from Rainfall-Induced Erosion	This test method covers the guidelines, requirements and procedures for evaluating the ability of Erosion Control Blankets (ECBs) to protect hillslopes from rainfall-induced erosion.	C136;D2974; D422;D4318;D698
D6460-00	Standard Test Method for Determination of Erosion Control Blamket (ECB) Performance in Protecting Earthen Channels from Stormwater-Induced Erosion	This test method covers the guidelines, requirements and procedures for evaluating the ability of Erosion Control Blankets (ECBs) to protect earthen channels from stormwater-induced erosion.	C136;D2974; D422;D4318;D698
D6475-00	Standard Test Method for Measuring the Mass per Unit Area of Erosion Control Blankets	This test method can be used as an index test to determine the mass per unit area of all erosion control blankets (ECBs).	D123;D653;D1776;D3740;D4354;D4439;D5261;D6026
Articulating Concrete Block			
D6684-01	Standard Specification for Materials and Manufacture of Articulating Concrete Block (ACB) Revetment Systems	The purpose of this Standard is to provide specifications for articulating concrete block (ACB) revetment system structural components, material composition and physical properties, manufacturing methods and testing requirements.	C33;C39;C42;C67;C140;C150;C207;C331;C595;C618;C666;C1262;D4533;D4632;D4833. AASHTO M288-1995.
Bioengineering			
D6599-00	Practice for Construction of Live Fascines on Slopes	This practice covers the material, fabrication and installation work to construct live fascines.	
Landscaping			
D5268-92(1997)	Standard Specification for Topsoil Used for Landscaping Purposes	This specification covers a physical evaluation of an inorganic soil containing a limited amount of organic material, relative to its use as a topsoil for horticulture purposes in construction. This specification does not cover a determination of the nutrients, nor their availability.	D653;D1140;D2974;D4972;E11
D5883-96e1	Standard Guide for Use of Kiln Produced Expanded Shale, Clay or Slate (ESCS) as an Amendment in Topsoil Used for Landscaping and Related Purposes	This guide covers the materials characteristics, physical requirements, and sampling apprpriate for the designation of the material as a mineral amendment. This guide does not cover the determination of nutrients, nor their availability.	C29;C566;D75;D653;D1140;D4972;D5268;E11