

Experts on the Field, Partners in the Game.

www.stma.org

The STMA Collection of ASTM Standards for Athletic Fields

ASTM International is one of the largest voluntary standards development organizations in the world. It has become a trusted source for technical standards for materials, products, systems and services, and it guides design, manufacturing and trade in the global economy.

STMA, with the support of its charitable foundation, SAFE, has compiled the ASTM standards recommended for athletic field facilities into this convenient, at-a-glance collection. STMA's goal is to provide its members with information to help them produce safe, playable surfaces to maximize the performance of the field and protect athletes. These standards address important safety issues as well as testing and proper construction of athletic field surfaces.

STMA is the not-for-profit, professional association for the men and women who manage sports fields. Its 2,800 members oversee sports fields and facilities at schools, colleges and universities, parks and recreational facilities, and professional sports stadiums. Since 1981, the association and its dozens of local chapters have been providing education, information and sharing practical knowledge in the art and science of sports field management.

Instructions on how to purchase these standards on the ASTM website can be found on the last page.

Standard Test Methods for Athletic Field Rootzones

Particle Size Analysis and Sand Shape Grading of Golf Course Putting Green and Sports Field Rootzone Mixes

This test method outlines laboratory procedures for analyzing the sands used in sand-based rootzones. These techniques allow individuals to determine not only sand, silt, and clay content, but the percentages of each sand fraction (i.e. - coarse sand, medium sand, fine sand, etc.)

Designation: F1632-03

Organic Matter Content of Putting Green and Sports Turf Rootzone Mixes

This test method outlines laboratory procedures for determining the amount of organic matter in a sports turf rootzone mix.

Designation: F1647-02a

Saturated Hydraulic Conductivity, Water Retention, Porosity, and Bulk Density of Putting Green and Sports Turf Rootzones

This test method outlines laboratory procedures for determining the physical properties of soils used to construct sports turf rootzones.

Designation: F1815-06

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Standard Guides for Athletic Field Construction and Maintenance

Quality Control Procedures During the Construction of Natural Playing Surfaces

This proposed standard outlines proper practices to be used in the sampling and quality control testing of root-zone materials used during the construction process. The standard covers gravel, sand, organic amendments, and finish-blended rootzone mixes

Designation: WK490

Construction of High Performance Sand-Based Rootzones for Sports Fields

This standard is to athletic fields what the USGA specifications are to golf course putting greens. The standard outlines techniques that are appropriate for the construction of sand-based sports turf rootzones. The standard provides guidance for the selection of materials including soil, sand, gravel, and peat, as well as an overview of appropriate design and construction practices.

Designation: F2396-04

Construction and Maintenance of Skinned Areas on Baseball and Softball Fields

This standard covers techniques for constructing and maintaining skinned areas on baseball and softball fields. The standard provides guidance for selecting suitable construction materials (soil, sand, etc.). Construction techniques are outlined along with minimum maintenance procedures such as scarification, irrigation, and the use of conditioners.

Designation: F2107-07

Construction and Maintenance of Warning Track Areas on Sports Fields

This standard covers techniques for constructing and maintaining warning track areas on sports fields. The standard provides guidance for selecting suitable construction materials, as well as a list of suitable construction and maintenance techniques like edging, dragging, and rolling. Synthetic warning tracks are not covered in this standard.

Designation: F2270-04

Construction and Maintenance of Grass Tennis Courts

This standard outlines techniques that are appropriate for the construction and maintenance of grass tennis courts. The standard provides guidance for the selection of soil materials and turfgrass species to be used

Designation: F1953-99(2003)

Maintaining Cool Season Turfgrasses on Athletic Fields

This standard outlines the minimum requirements for maintaining cool-season turfgrass athletic fields. Practices covered include mowing, fertilization, irrigation, core cultivation, and pest management.

Designation: F2060-00(2005)

Maintaining Warm Season Turfgrasses on Athletic Fields

This standard outlines the minimum requirements for maintaining warm-season turfgrass athletic fields. Practices covered include mowing, fertilization, irrigation, core cultivation, winter overseeding, and pest management.

Designation: F2269-03

Standard Test Method for Playing Surfaces

Measuring Shock-Attenuation Characteristics of Natural Playing Surface Systems Using Lightweight Portable Apparatus

This test method outlines procedures for measuring the hardness of athletic field playing surfaces with devices like the Clegg Soil Impact Tester.

Designation: F1702-96(2002)e1

Standard Test Method for Shock-Absorbing Properties of Playing Surface Systems and Materials

This test method is applicable to both natural and artificial playing surface systems. Shock-absorbing characteristics, impact force-time relationships, and the rebound properties of playing surface systems are all measured.

Designation: F355-01

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Standard Specification for Shock-Absorbing Properties of North American Football Field Playing Systems as Measured in the Field

This specification covers a test method and maximum impact attenuation for all types of installed turf playing systems for North American football. Areas within an existing playing system where shock-absorbing properties exceed recommended threshold values are identified using this specification. The turf playing system includes both inbounds and out-of-bounds areas where the athlete should expect compliant impact attenuation characteristics. It does not imply that an injury cannot be incurred if the surface system complies with this specification.

Designation: F1936-07e1

Standard Guides for Synthetic Surfaces

Measuring Lead (Pb) in Synthetic Turf Fibers and Finished Yarns

This test method outlines the guidelines for reporting total lead content in the synthetic turf fibers. Turf fibers manufactured after September 1, 2009 qualify for this test.

Designation: F2765-09

Standard Test Method for Relative Abrasiveness of Synthetic Turf Playing Surfaces

This test method measures the relative abrasiveness of fabric or carpet type synthetic playing surfaces.

Designation: F1015-03(2009)

Standard Test Methods for Comprehensive Characterization of Synthetic Turf Playing Surfaces and Materials

These test methods are used to identify physical property characteristics and comparison of the performance properties of synthetic turf systems or components for athletic and recreational uses, or both.

Designation: F1551-09

Standard Guides for Soccer Goals

Safety and Performance Specifications for Soccer Goals

This standard outlines safety and performance requirements for soccer goals. Properties such as strength, stability, and weight are discussed.

Designation: F2056-00

Safer Use of Movable Soccer Goals

This standard discusses how to install, use, and store soccer goals of various sizes.

Designation: F1938-98(2004)

Standard Guides for Fences

Fences on Ballfields and Other Sports Facilities

This standard outlines minimum safety requirements for various types of fences used on sports fields. Appropriate installation practices are discussed as well.

Designation: F2000-06

Construction of Chain-Link Tennis Court Fence

This standard covers proper techniques for constructing chain-link fencing around tennis courts. Various types of chain-link fabric and framework materials are discussed, in addition to appropriate installation procedures.

Designation: F969-07

Purchasing ASTM Standards

To purchase the ASTM standards, please visit the ASTM website (www.astm.org). By clicking on Standards in the left hand column, you can then enter the Designation code listed above to view a summary and purchase the standard guides.