



Designation: F2049 – 11 (Reapproved 2017)

Standard Safety Performance Specification for Fences/Barriers for Public, Commercial, and Multi-Family Residential Use Outdoor Play Areas¹

This standard is issued under the fixed designation F2049; 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 specification provides the recommended minimum requirements for denoting various types of fences/barriers for the protection of children's outdoor play spaces in public, commercial, and multi-family residential use locations. This specification excludes individual single family residential use play equipment locations. Interior fences located in a play area that has a perimeter fence established shall only have to comply with the latch height requirement indicated in 7.6.2.

1.2 This specification provides for the safety of occupants in play areas or zones as it pertains to vehicular intrusion as well as other participant intrusion, and for children containment or entry/exit. This specification has the intent to also keep children inside a predetermined area in an effort to enhance supervision; to keep children from running out of the area into water and other hazards; to minimize the likelihood of facial lacerations on low gate and fence hardware; to minimize the likelihood of abduction; and to restrict access to railroads, highways, roads, and other such hazards.

1.3 This specification does not choose the product components for the fence system, the choice of which should be made by the operators of the play space and their specification writers or drafters based upon their determination of the merits of the products that could be used.

1.4 The values stated in inch-pound units are to be regarded as standard. The SI values given in parentheses are for information only.

1.5 *This specification does not purport to address the aspect of safety within a play area or zone. It is the responsibility of the user of this specification to establish appropriate safety practices as related to the play area and determine the applicability of regulatory requirements prior to use.*

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the*

Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

2. Referenced Documents

2.1 ASTM Standards:²

A392 Specification for Zinc-Coated Steel Chain-Link Fence Fabric

A491 Specification for Aluminum-Coated Steel Chain-Link Fence Fabric

F552 Terminology Relating to Chain Link Fencing

F668 Specification for Polyvinyl Chloride (PVC), Polyolefin and Other Polymer-Coated Steel Chain Link Fence Fabric

F1043 Specification for Strength and Protective Coatings on Steel Industrial Fence Framework

F1083 Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures

F1183 Specification for Aluminum Alloy Chain Link Fence Fabric

F1345 Specification for Zinc-5 % Aluminum-Mischmetal Alloy-Coated Steel Chain-Link Fence Fabric

2.2 Research Reports:³

National Cooperative Highway Research Program Report #54

3. Terminology

3.1 See Terminology F552 for definitions of terms relating to chain-link fencing.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *fence, n*—type of containment that surrounds and obstructs primarily people passage to or from the play area.

3.2.2 *barrier, n*—type of containment or deflector system that surrounds and obstructs primarily vehicle passage into a play area, such as bollards and posts. Barriers must pass impact

¹ This specification is under the jurisdiction of ASTM Committee F14 on Fences and is the direct responsibility of Subcommittee F14.10 on Specific Applications.

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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.

³ Colcote, L. R., and Mitchie, J. D., "Location, Selection, and Maintenance of Highway Guardrails and Median Barriers," *National Cooperative Highway Research Program Report #54*, S. W. Research Institute, San Antonio, TX.