

Designation: F2950 - 14 (Reapproved 2021)

Standard Safety and Performance Specification for Soccer Goals¹

This standard is issued under the fixed designation F2950; 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 standard specifies safety and performance requirements aimed at providing safer soccer goals and thereby reducing injuries and fatalities.

1.2 This specification applies to all soccer goals with a total weight greater than 40 lb when weighed in accordance with 7.1.1 and 7.1.2.

1.3 This specification supersedes Specification F2056 - 09.

1.4 This specification supersedes Specification F2673 - 08.

1.5 The values stated in inch-pound units are to be regarded as standard. No other units of measurement are included in this standard.

1.6 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.

1.7 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

F1487 Consumer Safety Performance Specification for Playground Equipment for Public Use

F2056 Safety and Performance Specification for Soccer Goals (Withdrawn 2018)³

F2673 Safety Specification for Special Tip-Resistant Movable Soccer Goals (Withdrawn 2017)³

2.2 Other Standards:

- ANSI Z535.4 Guidelines for the Design and Safety Signs and labels for Application to Products
- EN 748 Playing field equipment Football goals Functional and safety requirements, test 57 methods

3. Terminology

3.1 *Definitions:*

3.1.1 *base frame, n*—portion of the goal frame consisting of the left base, right base, and back bottom bar.

3.1.2 *crush or shear point, n*—any point that entraps at one or more positions a 0.62 in. diameter rod.

3.1.3 *movable goal, n*—any free-standing soccer goal designed to be readily moved from location of use to location of use. If a goal is able to function as a soccer goal without the use of anchors or support of other structure, it must be considered a movable goal.

3.1.4 *permanent goal, n*—any goal fixed by concrete or other material to ground or floor, with or without net supports. Cannot be relocated for use.

3.1.5 *semi permanent goal, n*—any goal designed to be inserted into a ground sleeve or readily fastened to a supporting structure and thereby able to be removed from the location of use.

3.1.6 *upright frame, n*—portion of the goal frame consisting of the left upright, right upright, crossbar and backstays.

3.2 See Fig. 1 for goal component definitions.

4. Material

4.1 The goal frame may be made of any material, provided the requirements of this standard are fulfilled.

4.2 All materials related to the construction of the goal frames (net excluded) shall be designed to maintain their integrity for outdoor use for a minimum period of five years when maintained according to manufacturer's instruction and schedule.

5. Design

5.1 The uprights and the crossbar shall have the same cross section.

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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.

 $^{^{3}\,\}mathrm{The}$ last approved version of this historical standard is referenced on www.astm.org.



Note 1—Typical designs shown; variations are numerous. Depictions are not intended to limit design. FIG. 1 Goal Components – Reference Section 3

5.2 The cross section of the side parts of the base frame shall not extend outside of the uprights at the point where the base frame meets the upright.

5.3 There shall be no crush or shear points caused by junctures of two or more components where at least one of the components moves in relation to the opposing component(s).

5.4 All exposed corners and edges shall be rounded with a radius of at least 0.12 in.

5.5 All tubing ends shall be covered.

5.6 Net attachment shall be strong enough to hold net in place during play.

5.7 Semi Permanent Goals:

5.7.1 Ground sleeves for semi permanent goals shall be adapted to the diameter of the uprights.

5.7.2 Ground sleeves shall be designed to be set in concrete, and include provision for water drainage.

5.8 The goal shall have no protrusions as determined by the gauges in Fig. 2 and the procedure below.

5.8.1 Successively place each of the three gauges over each accessible projection in any and all directions.

5.8.2 A projection is a protrusion if it extends beyond the face of any of the three gauges. See Fig. 3 and Fig. 4 for usage examples.

5.9 Anchors, hardware, and installation instruction shall be included with goal and shall be sufficient to enable the goal to

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pass all testing required within this specification in any foreseeable soil conditions and recommended installations.

6. Head and Neck Entrapment

6.1 Goals shall be designed so that any accessible opening meets the following requirements.

6.2 If the field surface (ground) is the lower boundary of the opening then the opening is exempt from these requirements.

6.3 Completely bounded rigid openings.

6.3.1 A completely bounded rigid opening is considered accessible if a torso probe (Fig. 5) can be inserted into the opening to a depth of 4.0 in. or more.

6.3.2 Place the torso probe (Fig. 5) in the opening with the plane of the base of the probe parallel to the plane of the opening; rotate the probe to its most adverse orientation (that is, major axis of the base of the probe parallel to the major axis