



Designation: F1712 – 11

# Standard Specification for Steel Chain-Link Fencing Materials Used for High Security Applications<sup>1</sup>

This standard is issued under the fixed designation F1712; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This specification covers chain-link fencing material applications for high security applications.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

## 2. Referenced Documents

2.1 *ASTM Standards*:<sup>2</sup>

A121 Specification for Metallic-Coated Carbon Steel Barbed Wire

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

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

A824 Specification for Metallic-Coated Steel Marcellled Tension Wire for Use With Chain Link Fence

F567 Practice for Installation of Chain-Link Fence

F626 Specification for Fence Fittings

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

F900 Specification for Industrial and Commercial Steel Swing Gates

F934 Specification for Colors for Polymer-Coated Chain Link Fence Materials

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

F1184 Specification for Industrial and Commercial Horizontal Slide Gates

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

F1379 Terminology Relating to Barbed Tape

F1664 Specification for Poly(Vinyl Chloride) (PVC) and Other Conforming Organic Polymer-Coated Steel Tension Wire Used with Chain-Link Fence

F1665 Specification for Poly(Vinyl Chloride) (PVC) and Other Conforming Organic Polymer-Coated Steel Barbed Wire Used With Chain-Link Fence

F1910 Specification for Long Barbed Tape Obstacles

F1911 Practice for Installation of Barbed Tape

F2200 Specification for Automated Vehicular Gate Construction

2.2 *UL Standard*:

UL 325 Door, Drapery, Gate, Louver, and Window Operators and Systems<sup>3</sup>

2.3 *Chain Link Fence Manufacturers Institute*:

WLG 2445 Chain Link Fence Wind Load Guide for the Selection of Line Post and Line Post Spacing<sup>4</sup>

## 3. Significance and Use

3.1 Typical end users of this specification require higher than normal security.

## 4. Materials and Manufacture

4.1 *Framework*—Shall meet the size and strength requirements in Specification F1043, Table 3, for heavy industrial fence framework. Where icing conditions and high wind loads are prevalent, fences using small security mesh, or fences higher than 12 ft (3.7 m), determine the post size and spacing using WLG 2445. Horizontal top, mid or bottom rails if specified shall be 1.660-in. (42-mm) O.D., or roll-formed section 1¼ by 1⅝ in. (32 by 41 mm). Framework may be polymer-coated and color shall be one of the choices listed in Specification F934. Framework coatings shall be in accordance with Specification F1043.

4.2 *Fabric*—Chain link fabric shall conform to Specifications A392, A491, F668, or F1345. Mesh larger than 1 in. (25 mm) shall be 6-gauge, 0.192 in. (4.88 mm) or 9-gauge, 0.148

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee F14 on Fences and is the direct responsibility of Subcommittee F14.50 on High Security Fences and Perimeter Barriers.

Current edition approved June 1, 2011. Published June 2011. Originally approved in 1996. Last previous edition approved in 2006 as F1712 - 06. DOI: 10.1520/F1712-11.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>3</sup> Available from Underwriters Laboratories (UL), 2600 N.W. Lake Rd., Camas, WA 98607-8542, <http://www.ul.com>.

<sup>4</sup> Available from Chain Link Fence Manufacturers Institute, 10015 Old Columbia Road, Suite B-215, Columbia, MD 21046, <http://www.chainlinkinfo.org>.