



Designation: F1664 – 08 (Reapproved 2013)

# Standard Specification for Poly(Vinyl Chloride) (PVC) and Other Conforming Organic Polymer-Coated Steel Tension Wire Used with Chain-Link Fence<sup>1</sup>

This standard is issued under the fixed designation F1664; 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 PVC and other conforming organic polymer-coated steel tension wire for use with chain link fence. PVC and other organic polymer coatings hereinafter will be designated as polymer coating.

1.2 Tension wire, produced from three classes of wire coatings, is covered as follows:

1.2.1 *Class 1*, consisting of a polymer coating extruded over zinc-coated or aluminum-coated or zinc-5 % aluminum-mischmetal alloy-coated steel wire;

1.2.2 *Class 2a*, consisting of a polymer coating extruded and adhered to zinc-coated or aluminum-coated or zinc-5 % aluminum-mischmetal alloy-coated steel wire; and

1.2.3 *Class 2b*, consisting of a polymer coating fused and adhered to zinc-coated or aluminum-coated or zinc-5 % aluminum-mischmetal alloy-coated steel wire.

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

## 2. Referenced Documents

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

[A90/A90M Test Method for Weight \[Mass\] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings](#)

[A370 Test Methods and Definitions for Mechanical Testing of Steel Products](#)

[A428/A428M Test Method for Weight \[Mass\] of Coating on Aluminum-Coated Iron or Steel Articles](#)

[D1499 Practice for Filtered Open-Flame Carbon-Arc Exposures of Plastics](#)

[F552 Terminology Relating to Chain Link Fencing](#)

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee F14 on Fences and is the direct responsibility of Subcommittee F14.40 on Chain Link Fence and Wire Accessories.

Current edition approved March 1, 2013. Published March 2013. Originally approved in 1995. Last previous edition approved in 2008 as F1664 – 08. DOI: 10.1520/F1664-08R13.

<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.

[F934 Specification for Colors for Polymer-Coated Chain Link Fence Materials](#)

[G152 Practice for Operating Open Flame Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials](#)

[G153 Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials](#)

## 3. Terminology

3.1 *Definitions*—For definitions of terms such as fabric (chain-link fence), tension wire, PVC, and polymer coating, see Terminology [F552](#).

## 4. Ordering Information

4.1 Orders for tension wire purchased in accordance with this specification shall include the following information:

4.1.1 Quantity (expressed in number of coils);

4.1.2 Class of coating to be applied to metallic-coated steel wire;

4.1.3 Color of coating;

4.1.4 Selection of type of metallic coating on the steel wire substrate, which shall be the choice of the producer unless otherwise specified;

4.1.5 Core diameter of wire or minimum wire breaking strength, or both;

4.1.6 Packaging requirements; and

4.1.7 Certification, if required.

4.2 Any tests required other than those covered specifically in this specification must be stipulated by the purchaser in the order or contract.

NOTE 1—A typical ordering description is as follows: 20 coils polymer-coated steel tension wire, Class 2b coating, olive green color, 7-gage (0.177-in. (4.50 mm)) core wire, in 1000-ft (305-m) coils, certified to this specification.

## 5. Materials

5.1 *Base Metal*—The base metal shall be steel of such quality and purity that, when drawn to the size of wire specified and coated with an organic polymer, the finished wire shall be of uniform quality and have properties and characteristics as prescribed in this specification.