



EverStrong[®]
P R O F I L E S

THE EverStrong[®] ADVANTAGE

WHAT IS ASTM F964-13?

Scope

ASTM F964-13 is considered the “end all, beat all” testing specification for vinyl fence. The purpose of this specification is to establish a recognized standard of quality for exterior vinyl profiles for use in assembling agricultural, commercial, and residential fencing and railing. This specification covers EverStrong Profiles sections and the EverStrong Profiles[®] used to fabricate them.

Materials

EverStrong Profiles Products are manufactured using Rigid Poly Vinyl Chloride (PVC) compounds for exterior-profile extrusions that meet the requirements of ASTM Specification D4216.

Manufacture

EverStrong Profiles Products are manufactured to meet cell Class 3–30233–23 as defined in Specification D4216. EverStrong compounds have higher cell classification because one or more properties are superior to those used in standard acceptable compounds.

Color/Consistency Testing – The PVC compound in extruded section shall maintain uniform color and be free of any visual surface or structural changes, such as peeling, chipping, cracking, flaking, or pitting after weathering at intervals of six months and one year for white and for six months, one year, and two years for all other colors in hot, dry climate such as Phoenix, AZ; a hot humid climate, such as Miami, FL; and a temperate northern climate, when tested in accordance with ASTM Performance Weathering Requirements (TABLE 1).

Weathering Testing – The PVC compound shall have a minimum impact resistance of 0.6 in.-lb/mil (2670 J/m) after weathering six months and one year in a hot, dry climate such as Phoenix, AZ; a hot, humid climate, such as Miami, FL; and a temperate northern climate, when tested in accordance with ASTM Performance Weathering Requirements. The PVC compound shall have successfully met the weathering requirements prescribed for six months at each climatic testing site prior to use in production of exterior-profile extrusions, when tested in accordance with ASTM Performance Weathering Requirements (TABLE 1).



ASTM SPECIFICATIONS MET

- D256** – To determine Izod impact properties
- D618** – Practice for Conditioning Plastics for Testing
- D635** – Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position D638 - To determine tensile properties
- D748** - To determine heat distortion temperature
- D696** – Test Method for Coefficient of Linear Thermal Expansion of Plastics Between 030°C and 30°C with a Vitreous Silica Dilatometer
- D790** - To determine flexural properties
- D792** - To determine specific gravity
- D883** – Terminology Relating to Plastics
- D1435** – Practice for Outdoor Weathering of Plastics
- D1600** Terminology for Abbreviated Terms Relating to Plastics
- D1784** – Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds
- D1898** – Practice for Sampling of Plastics
- D2240** – To determine Shore hardness values
- D2244** – Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates
- D2565** – Practice for Xenon-Arc Exposure of Plastics Intended for Outdoor Applications
- D4216** – Material Class Number1-32333-3. To establish Cell Classification of PVC material. EverStrong compounds have higher cell classification because one or more properties are superior to those used in standard acceptable compounds
- D4226** – Test Methods for Impact Resistance of Rigid Poly-(Vinyl Chloride) (PVC) Building Products
- D4726** – Specification for Rigid Poly(Vinyl Chloride) (PVC) Exterior-Profile Extrusions Used for Assembled Windows and Doors
- E-84-04** - Used to determine the flame spread value of PVC material; EverStrong burn rate is significantly lower than allowed value

QUALITY ASSURANCE

EverStrong Profiles Products are run through dimensional tests at the startup of a production run and every two hours thereafter including flattening, extrusion quality, impact resistance, warp, color comparison with standard color samples, capstock thickness, and bond testing will be done at the startup of a production and once per shift thereafter with a minimum of two tests per 24 hours of production.

TABLE 1 - Required Exposures for PVC Extrusions - In Process

Color of PVC Extrusions	Exposure Climate	Required Exposure Times, Months*
White	hot, dry (Phoenix, AZ)	6 and 12
	hot, humid (Miami, FL)	6 and 12
	northern temperate	6 and 12
Any other color	hot, dry (Phoenix, AZ)	6, 12 and 24
	hot, humid (Miami, FL)	6, 12 and 24
	northern temperate	6, 12 and 24

*It is recommended that separate specimens be used for each exposure time.