

Polyvinyl Chloride (PVC)- Coated Steel Chain Link Fence Fabric Class 1 – Extruded or Class 2a – Extruded and Adhered

ASTM F 668, Federal specification RR-F-191 Type IV, AASHTO M-181 Type IV

1. PRODUCT NAME

Extruded Polyvinyl Chloride (PVC) Coated Steel Chain Link Fence Fabric.

2. MANUFACTURER

Southwestern Wire, Inc.

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3. PRODUCT DESCRIPTION

Basic Use:

Extruded PVC coated chain link fence fabric is suitable for industrial, commercial, and institutional applications where the additional corrosion resistance and or the enhanced appearance of PVC coated wire is desired. Extruded PVC fence fabric is often required by local, state and federal government specifications for use in prison, road, dock, airport, housing, forestry and military applications.

Composition and Materials:

The core wire is cold drawn from commercial grade medium/low carbon steel rod to the appropriate diameter. The wire is then galvanized (zinc coated) to the appropriate coating weight per diameter as specified in ASTM F668. The finished core wire has a minimum breaking strength as specified for the diameter in ASTM F668.

For a Class 1 PVC Coating a minimum 0.015 in. / maximum 0.025 in. is extruded over the core wire. For a Class 2a PVC Coating an additional adherent is applied to the core wire before extrusion in order to further adhere the PVC to the core wire. These finished wires shall conform to the requirements of ASTM F668 with reference to adhesion, aging, malleability and color.

The wire is then woven into Chain Link Fence fabric to the mesh size, height, and selvage as required by the end user.

Standards:

ASTM B 6 Slab Zinc

ASTM F567 Installation of Chain Link Fence

ASTM F668 *Standard Specification for Polyvinyl Chloride*

(PVC) and Other Organic Polymer-Coated Steel Chain Link Fence

Fabric, Class 1 and Class 2a

Federal specification RR-F-191K/1D

Fencing, Wire and Post Metal

(Chain-Link Fence Fabric), Type IV

American Association of State

Highway Transportation Officials

(AASHTO) –181 Chain Link Fence, Type IV, Class A

4. TECHNICAL DATA

General:

The manufacturer, if requested, will supply samples and certification that all materials furnished fully comply with the appropriate specifications.

Chain Link Fence Fabric:

The base metal of the chain link fence fabric is composed of commercial quality, medium-carbon galvanized (zinc coated) steel wire.

With Class 1 and Class 2a, the vinyl coating is continuously applied over the galvanized wire by the extrusion process. Class 2a has an additional application of an adherent to bind the vinyl coating to the steel wire. The extrusion process ensures a dense and impervious coating free of voids, as well as a smooth and lustrous surfaces appearance. Vinyl coating thickness, galvanized coating weight, and wire tensile strength conform to ASTM F668, Class 1 or Class 2a, Federal specification RR-F-191 Type IV, and AASHTO M-181 Type IV, Class A, as shown in **Table 2**. The wire is PVC coated before weaving and is free and flexible at all joints. Unless otherwise specified, fabric woven in 2 in. (50mm) mesh, under 72” (1,830 mm) in height, is knuckled at both selvages; fabric 72” (1,830 mm) high and over is knuckled at one selvage and twisted at the other. All fabrics woven into meshes under 2 in. (50 mm) have both selvages knuckled. **See Table 1.**

Wire Coating:

The Polyvinyl Chloride (PVC) coated wire from which the fabric is woven will demonstrate the ability to conform to all requirements and test in ASTM F668. The PVC coating resists attack from prolonged exposure to dilute solutions of most common mineral acids, seawater, and dilute solutions of most salts and alkali. **See Table 3.**

ASTM Color System:

Standard colors conform to ASTM F934 and include:

	Dark	Green	Brown	Black
L	28.61	27.76	22.30	
A	-12.59	3.37	-0.09	
B	1.95	4.28	-0.85	

Other colors are available by special order.

Sizes:

PVC coated fabric is available in mesh sizes from 3/8 inch to 2 inches (10 mm to 50 mm), and in heights for 36 inches to 240 inches (910 mm to 6,100 mm).

5. INSTALLATION

Install chain link fence fabric in accordance with ASTM Practice 567. Handle all PVC coated material with care. If PVC coating is damaged during installation, contractor must replace or repair the material at own expense.

6. AVAILABILITY AND COST

Availability:

PVC-coated steel chain link fence fabric is available for shipment throughout the United States and worldwide.

Cost:

Material costs may vary depending on specific requirements. Costs may be obtained by calling Southwestern Wire, Inc. or one of their stocking dealers.

7. WARRANTY

Extruded PVC coated steel chain link fence fabric (Class 1 and 2a) is warranted for 15 years against failure due to rust or corrosion.

8. MAINTENANCE

Periodic inspection is recommended but no routine maintenance is required.

9. TECHNICAL SERVICES

Technical services are available at Southwestern Wire, Inc. by calling 1-800-348-9473.



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Table 1 - PVC Coated Chain Link Fabric Sizes

Mesh Size		Finish Wire Gage	Fabric Wire Height Inch (mm)	Selvage K-Knuckled, T-Twisted/Barbed	Roll Size	
inch	mm				ft	m
2"	50	6,8	36-240 (910-6,100)	KK, KT, TT	50	15.24
1-3/4"	44	6,8	36-240 (910-6,100)	KK Only	25	7.62
1"	25	8	36-144 (910-3,660)	KK Only	25	7.62
Maximum Security Mesh						
5/8"	16	11	36-72 (910-1,830)	KK Only	25	7.62
1/2"	13	11	36-72 (910-1,830)	KK Only	25	7.62
3/8"	10	11	36-72 (910-1,830)	KK Only	25	7.62

Fabric with other characteristics may be available. Contact the Southwestern Wire, Inc. Sales Department with specific requests.

Table 2 - PVC-Coated Steel Wire Characteristics

Zinc Coated Core Wire Size			PVC Coated Finished Wire Size	PVC Coated Wire Allowable Variance			Core Wire Zinc Coating Weight, min.		PVC Coating Thickness		Breaking Strength, minimum		Tensile Strength min.	
Ga	inch	mm	ga	inch	mm	oz/ft ²	g/m ²	inch	mm	lbf	N	ksi	MPa	
9	0.148	3.76	6	+0.005	+0.13	0.30	92	0.015	0.38	1,290	5,740	75	515	
11	0.120	3.05	8	+0.005	+0.13	0.30	92	to	to	850	3,780	75	515	
14	0.080	2.03	11	+0.005	+0.13	0.25	76	0.025	0.64	380	1,690	75	515	

Note: Core wire sizes less than 0.120" (3.05 mm) are not contained in Federal specification RR-F-191 or AASHTO M-181.

Table 3: Typical Vinyl Properties

Test	Test Method	Value
Specific Gravity	ASTM D 792	1.30 + 0.03
Hardness, Durometer	ASTM D 2240	A90 + 5
Tensile Strength	ASTM D 412	2,600 + 5%
Ultimate Elongation	ASTM D 412	275% + 5%
Mandrel Bend Test, 10x mandrel	ASTM F 668	-20degreeF(-29degreeC)
Dielectric Strength, volt/mil	ASTM D 149	750
Compression sut-thought, lbs	Bell Labs	1,500
Accerated Aging Test	ASTM D 1499	1500 hrs. @145degreeF

Questions regarding any technical information or special requests for non-standard product should be directed to the sales department at Southwestern Wire, Inc.

