

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

Richard's Fence Company, 1600
Firestone Pkwy, Akron, OH 44301
800-624-5520.

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 to the appropriate coating weight per diameter as specified in ASTM F668. The finished core wire has a minimum breaking strength of 650 lbs per 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 selvege 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/ID 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 material 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 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 surface 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" (50mm) mesh, under 72" (1,830mm) in height, is knuckled at both selvages; fabric 72" high and over is knuckled at one selvege and twisted at the other. All fabrics woven into meshes under 2" (50mm) 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 diluted solutions of most common mineral acids, seawater, and dilute solutions of most salts and alkali. See Table 3.

ASTM Color System;

Standard colors confirm to ASTM F934 and include:

	Dk Green	Brown	Black
L	28.61	27.76	22.3
A	-12.59	3.37	-0.09
B	1.95	4.28	-0.85

Other colors are available.

Sizes:

PVC coated fabric is available in mesh sizes from 3/8" to 2" (10mm to 50mm), and in heights from 18" to 264" (457mm to 6,700mm). Not all mesh sizes are available in all heights.

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

PVC coated steel chain link fence fabric is available for shipment throughout the United States and worldwide. Material costs may vary depending on specific requirements. Costs may be obtained by calling Richard's Fence Company or one of their dealers.

7. WARRANTY

Extruded PVC coated steel chain link fence fabric 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.

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Table 1 - PVC Coated Chain Link Fabric Sizes

Mesh Size		Finish Wire Gauge	Fabric Height Inch (mm)	Fabric Selvage K-knuckled, T-Twist	Roll Size	
2"	50mm	6, 8 or 9	18-264(457-6,700)	KK, KT or TT	50'	15.24 m
1-3/4"	44mm	6, 8 or 9	18-264(457-6,700)	KK only	25'	7.62 m
1"	25mm	6, 8 or 9	18-144(457-3,660)	KK only	25'	7.62 m
Maximum Security Mesh						
5/8"	16mm	9 or 11	18-72(457-1,830)	KK only	25'	7.62 m
1/2"	13mm	9 or 11	18-72(457-1,830)	KK only	25'	7.62 m
3/8"	10mm	9 or 11	18-72(457-1,830)	KK only	request	request

Fabric with other characteristics may be available. Contact Richard's Fence Company with specific requests.

Table 2 - PVC Coated Steel Wire

Zinc Coated Core Wire Size			PVC Finish Size	PVC Coated Wire Variance		Core Wire Zinc Coating Weight		PVC Coating Thickness		Breaking Strength, Minimum		Tensile Strength, Minimum	
ga	inch	mm	ga	inch	mm	oz/ft ²	g/m ²	inch	mm	lbf	N	ksi	MPa
9	0.148	3.76	6	±.005	±0.13	0.3	92	0.015	0.38	1,290	5,740	75	515
11	0.12	3.05	8	±.005	±0.13	0.3	92	to	to	850	3,780	75	515
12	0.105	2.6	9	±.005	±0.13	0.3	76	to	to	650	1,290	75	515
14	0.08	2.03	11	±.005	±0.13	0.25	76	0.025	0.64	380	1690	75	515

Table 3- Typical Vinyl Properties

Test	Test Method	Value
Specific Gravity	ASTM D792	1.30 + 0.03
Hardness, Durameter	ASTM D 2240	A90 + 5
Tensile Strength	ASTM 412	2600 +5%
Ultimate Elongation	ASTM 412	275% + 5%
Mandrel Bend Test, 10x Mandrel	ASTM F668	-20 degrees F
Dielectric Strength, volt/mil	ASTM D149	750
Compression sut-through, lbs	Bell Labs	1500
Accelerated Aging Test	ASTM D 1499	1500 hrs. @ 145 degrees F