

Aluminum Coated Steel Chain Link Fence Fabric ASTM A 491, Federal specification RR-F-191 Type II, AASHTO M-181 Type II

1. PRODUCT NAME

Aluminum Coated Steel Chain Link Fence Fabric

2. MANUFACTURER

Merchants Metals
Manufacturing Locations:

Whittier, CA 90608
12482 East Putnam Street
Phone: (800) 336-2396
Fax: (562) 696-9604

New Paris, IN 46553
71347 County Road 23
Phone: (800) 831-4060
Fax: (219) 831-3515

Westfield, MA 01085
24 Fowler Street Extension
Phone: (800) 447-5713
Fax: (413) 572-3706

Statesville, NC 28677
165 Fanjoy Road
Phone: (800) 438-7016
Fax: (704) 873-1313

Houston, TX 77093
4901 Langley Road
Phone: (800) 723-3623
Fax: (713) 697-5806

Bladensburg, MD 20710
4301- 46th Street
Phone: (301) 927-4080
Fax: (301) 927-0368

3. PRODUCT DESCRIPTION

Basic Use:

Aluminum coated (aluminized) steel chain link fence fabric for commercial, industrial and institutional applications. Aluminized fabric is contained in various government specifications for use in prison, road, dock, airport, housing, forestry, and military use.

Composition and Materials:

Aluminized steel chain link fence fabric is produced by cold-drawing good commercial grade steel rod into wire of the appropriate diameter. The steel rod from which the wire is drawn shall be produced by the open

hearth, electric furnace or basic oxygen process.

The coating is produced by passing the cleaned wire through a molten bath of aluminum metal. Aluminum metal pigs or ingots used to produce the coating shall have no more than the following maximum levels of impurities:

Copper - 0.10% maximum Cu
Iron - 0.50% maximum Fe

Standards:

ASTM A 491 *Aluminum-Coated Steel Chain Link Fence Fabric*
ASTM F567 *Installation of Chain Link Fence*

ASTM A 817 *Metallic-Coated Wire for Use in Chain Link Fence*
Federal specification RR-F-191K/1D Type II, *Fencing, Wire and Post Metal (Chain-Link Fence Fabric)*
American Association of State Highway Transportation Officials M-181 *Chain Link Fence, Type II*

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 aluminum coated wire. The wire is coated with aluminum to produce a smooth and uniform coating. The weight of aluminum coating, wire sizes with allowable variances, and wire breaking strength, as shown in **Table 1**, conform to ASTM A 817 for the wire size specified. The wire is aluminum coated before weaving.

Sizes:

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

Unless otherwise specified, chain link fence fabric woven with a 2 inch (50 mm) mesh and 60 inches (1,520 mm) or less in height is knuckled at both selvages; for fabrics 72 inches

(1,830 mm) or greater in height the selvages are knuckled at one edge and twisted at the other. All fabrics which are woven into mesh sizes under 2 inches are knuckled at both selvages.

5. INSTALLATION

Install fence in accordance with ASTM Practice 567.

6. AVAILABILITY AND COST

Availability:

Aluminum 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 through all Merchants Metals Service Centers.

7. WARRANTY

Aluminum coated steel chain link fence fabric is warranted for 25 years against failure due to rust or corrosion. *Note: ASTM specification A491, Federal specification RR-F-191 and other major specifications state that discoloration or rust on the cut ends of aluminum coated fabric at the selvages are not cause for rejection.*

8. MAINTENANCE

Periodic inspection is recommended but no routine maintenance is required.

9. TECHNICAL SERVICES

Technical services are available through the Merchants Technical Sales Department:

Phone: (888) 260-1600 (toll free)
Facsimile: (888) 261-3600 (toll free)

or your local Merchants Metals Service Center.

Aluminum Coated Steel Chain Link Fence Fabric ASTM A 491, Federal specification RR-F-191 Type II, AASHTO M-181 Type II

Table 1 – Aluminum Coated Wire Characteristics

Nominal Coated Wire Diameter			Allowable Variance		Aluminum Coating Weight, minimum		Breaking Strength, minimum	
Gage	inch	Mm	inch	mm	oz/ft ²	g/m ²	lbf	Newtons
6	0.192	4.88	+0.005	+0.13	0.40	122	2,170	9,650
9	0.148	3.76	+0.005	+0.13	0.40	122	1,290	5,740
10	0.135	3.43	+0.005	+0.13	0.40	122	1,290	5,740
11	0.120	3.05	+0.005	+0.13	0.35	107	850	3,780

Table 2 – Aluminum Coated Chain Link Fabric Characteristics

Recommended Use	Mesh Sizes Available		Nominal Coated Wire Size, gage	Height of Fence Fabric inch (mm)
	inch	mm		
Industrial/Commercial	2"	50	6	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
			9	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
			10	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
			11	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
Industrial/Security	1"	25	6	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
			9	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
Security	1"	25	9	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
	1"	25	11	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
	3/4"	19	9	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
	3/4"	19	11	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
	5/8"	16	9	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
	5/8"	16	11	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
	1/2"	13	9	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
	1/2"	13	11	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
	3/8"	10	10	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
Tennis Court	1-3/4"	44	9	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)
			11	36 (910), 42 (1,070), 48 (1,220), 60 (1,520), 72 (1,830), 84 (2,130), 96 (2,440), 108 (2,740), 120 (3,050), 144 (3,660)

Notes to tables: Red text indicates conformance with ASTM A-491.

Fabrics with other characteristics may be available. Contact the Merchants Metals Technical Sales Department or a Merchants Metals Service Center with specific requests.

Issued February 2002

Technical Sales Department:
Telephone: (888) 260-1600
Facsimile: (888) 261-3600