

ASTM A491 Specification for Aluminum Coated Steel Chain Link Fence Fabric Federal Specification RR-F191/1F Type II AASHTO M-181 Type II

Product Name: Aluminum Coated (aluminized) Steel Chain Link Fence Fabric.

Basic Use: Aluminum coated steel chain link fence fabric for industrial, commercial and institutional applications. Aluminum coated fabric is contained in local, state and federal government specifications for use in prison, road, dock, airport, housing, forestry, and military use.

Composition and Material: Aluminum coated 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 is produced by the open hearth, electric furnace or basic oxygen process. The coating process 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 A491 – Aluminum-Coated Steel Chain Link Fence Fabric ASTM F567 – Installation of Chain Link Fence ASTM A817 – Metallic-Coated Wire for Use in Chain Link Fence Federal Specification RR-F-191K/1F Type II Fencing, Wire and Post Metal (Chain-Link Fence) AASHTO M-181 Chain Link Fence, Type II

Technical Data:

General: The manufacturer, if requested, will supply samples and certification that all materials furnished 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 the 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" to 2 3/8", and in heights from 24" to 240". Unless otherwise specified, chain link fence fabric woven with a 2" mesh and 60" or less in height is knuckled at both selvages. For fabrics 72" and taller, the selvage is knuckled at one edge and twisted at the other. All fabrics woven into mesh sizes under 2" are knuckled at both selvages.

Installation: Install fence in accordance with ASTM Practice 567. Handle all aluminum coated material with care. If aluminum coating is damaged or scratched during installation, contractor must replace or repair the material at own expense.

Maintenance: Periodic inspection is recommended but no routine maintenance is required.

ALUMINUM COATED STEEL CHAIN LINK FENCE FABRIC

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Nominal Coated Wire Diameter			Allowable Variance		Aluminum Coating Weight, min. Class 1		Breaking Strength, minimum	
Gage	Inch	mm	Inch	mm	Oz/ft ²	g/m²	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 1 - Aluminum Coated Wire Characteristics

Table 2 - Aluminum Coated Chain Link Fabric Characteristics

Recommended Use	Mesh Sizes Available Inch	Nominal Coated Wire Size, gage	Height of Fence Fabric inch
		6	36" - 144"
Industrial/Commercial	2"	9	36" - 144"
industria/commercial		10	36" - 144"
		11	36" - 144"
Industrial/Security	1"	6	36" - 144"
	I	9	36" - 144"
	1"	9	36" - 144"
	1"	11	36" - 144"
	3/4"	9	36" - 144"
	3/4"	11	36" - 144"
Security	5/8"	9	36" - 144"
Security	5/8"	11	36" - 144"
	1/2"	9	36" - 144"
	1/2"	11	36" - 144"
	3/8"	10	36" - 144"
	3/8"	11	36" - 144"
Tennis Court	1 3/4"	9	36" - 144"
	1 3/4	11	36" - 144"

*Chain-link fabric shall be furnished in the standard heights shown in Table 2. Custom order fabric is available in heights to and including 20'.