

SECTION 722 – CHAIN LINK FENCE MATERIALS

722.01 Chain Link Fence. Chain link fabric, fittings, and hardware shall conform to AASHTO M 181 and as below.

Zinc-coated steel or aluminum alloy products shall be furnished.

Chain link fence fabric shall be weaved into about 2-inch mesh.

(A) Zinc-Coated Steel.

(1) Fabric. Wire shall be furnished as follows:

(a) No. 11 gage for fences 48 inches or less in height.

(b) No. 9 gage for fences over 48 inches in height.

Zinc-coating shall be by hot-dip process after fabrication but before weaving. Zinc-coating shall conform to Type I, Class D coating, AASHTO M 181-98 (2002).

(2) Post, Fittings, and Hardware. Steel pipe for posts, braces, top railings, and gate frames shall conform to:

(a) ASTM A 53.

(b) High strength tubing made by cold rolling and radio frequency welding from steel conforming to ASTM A 653, Grade SS 50. Exterior surface shall have hot-dipped zinc coating of 1 ounce per square foot, followed by chromate conversion coating, and 0.5 ± 0.2 mils of clear acrylic. Interior surface shall have hot-dipped zinc coating of 1 ounce per square foot, followed by chromatic conversion coating. Product of yield strength and section modulus shall be greater than that of pipe conforming to ASTM A 53. Posts shall conform to dimensions and weights shown in Table 722.01-1 – Post Dimension and Weight.

TABLE 722.01-1 – POST DIMENSION AND WEIGHT			
Nominal Size Inches	OD Inches	Wall Thickness Inch	Weight Pounds/Foot
1-3/8	1.315	0.095	1.24
1-5/8	1.660	0.110	1.82
1-7/8	1.900	0.120	2.28
2-3/8	2.375	0.130	3.12
2-7/8	2.875	0.160	4.64
4	4.000	0.160	6.56

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(c) Rolled formed "C" sections shall be made from steel having minimum yield strength of 45 kips per square inch. Roll formed shapes shall be zinc-coated according to ASTM A 123. Weight of zinc-coating shall be 2 ounces per square foot of surface. Surface shall be further protected by chromate conversion coating, and 0.5 ± 0.2 mil of clear acrylic.

Rolled formed "C" sections shall be used only as line posts, braces, and top rails. Rolled formed "C" sections shall conform to dimensions and weights shown in Table 722.01-2 - Rolled Formed "C" Sections.

TABLE 722.01-2 – ROLLED FORMED "C" SECTIONS		
Dimensions Inches	Wall Thickness Inch	Weight Pounds/Foot
2-1/4 x 1-5/8	0.120	2.64
1-7/8 x 1-5/8	0.120	2.15
1-7/8 x 1-5/8	0.080	1.51
1-7/8 x 1-5/8	0.080	1.35

54 Bottom and top tension wires shall be at least No. 7
55 gage zinc-coated coil steel wire with 1.2 ounces of zinc coating
56 per square foot of surface.

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58 Tie wire shall be No. 13 gage zinc-coated steel or
59 aluminum wire. Zinc-coated steel or non-corrosive metal
60 bands acceptable by Engineer may be used for fastening chain
61 link fabric to posts and gate frames.

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63 Posts shall have total length greater than depth of
64 concrete footings plus length required above ground. Provide
65 tops to fit securely over posts as shown in the contract
66 documents. Top rail or top tension wire shall pass through
67 base of these tops.

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69 **(B) Aluminum Alloy.**

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71 **(1) Fabric.** Fabric wire shall be 0.148-inch nominal diameter wire.

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73 **(2) Post, Fittings and Hardware.** Aluminum pipes for posts,
74 braces, top railings, and gate frames shall conform to ASTM B 241.
75 Pipes shall conform to size of ANSI Schedule 40.

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77 Portion of aluminum fence posts that will be embedded in
78 portland cement concrete shall be painted in accordance with
79 Subsection 715.02(E).

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81 Bottom and top tension wire shall be nominal 0.192-inch
82 diameter.

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84 Tie wire shall be 0.148-inch diameter or flat band ties shall be
85 1/8 inch thick by 7/8 inch wide. Hog rings for attaching tension wire to
86 fabric shall be more than nominal 0.110-inch diameter.

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88 Expansion sleeves shall be 6 inches long of outside type.
89 Expansion sleeves shall be indented around circumference at center
90 to prevent creeping.

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END OF SECTION 722