

EXCERPTS FROM
Chain-Link Fence
AASHTO DESIGNATION: M 181-98

1. SCOPE

1.1 This specification covers materials used in the construction of fences and gates comprised of (a) chain-link fence fabric and (b) posts, rails, ties, bands, bars, rods and other fittings and hardware designed to support the fabric in a vertical, taut position.

2. REFERENCED DOCUMENTS

F 1043 Strength and Proective Coatings on
Metal Industrial Chain Link Fence Framework

3. CLASSIFICATION

3.1 Chain-link fabric, posts, rails, ties, bands, bars, rods and other fittings and hardware covered by this specification shall be composed of the following Types of material, as specified:

- Type I – Zinc-coated steel,
- Type II – Aluminum-coated steel,
- Type III – Aluminum alloy,
- Type IV – Polyvinyl Chloride (PVC)-coated steel.

Zinc-5 Percent Aluminum-Misch-metal alloy metal meeting the requirements of ASTM B 750 may be substituted for zinc coating (hot-dipped) at the application rate specified herein for hot-dip zinc coating.

3.2 Metallic-coated steel posts, rails, or gate frames are furnished in two grades as follows:

3.2.1 **Grade 1 steel posts, rails, or gate frames may be round or other shapes and shall have a hot-dip zinc interior and exterior coating as prescribed in this specification.**

3.2.2 Grade 2 steel posts, rails, or gate frames shall be round pipe or tubing manufactured by electric resistance welding and shall have an exterior coating of hot-dip zinc plus an organic topcoat and a zinc-rich or hot-dip zinc interior coating or Grade 2 posts may be aluminum-coated inside and outside.

29. MATERIALS (Posts, Hardware, and Fittings)

29.1 Steel posts, rails, and gate frames shall be one of the following:

29.1.1 Grade 1 steel posts, rails, and gate frames shall be of a shape approved by the Engineer and shall be commercial quality or better weldable steel produced by the open hearth, electric furnace, or basic oxygen process.

30. BENDING STRENGTH (Posts, Hardware, and Fittings)

30.1 For any type and shape of post, rail or gate frame the product of the yield strength and the section modulus shall not be less than the product of the section modulus of size pipe specified in ATM F 1083 schedule 40 Table 1 multiplied by 172 MPa (25000 psi).

30.2 The yield strength of Grade 2 pipe shall be determined in accordance with T 68 and T 68M, 0.2 percent offset method.

31. WEIGHT AND DIMENSION TOLERANCE (Posts, Hardware, and Fittings)

31.1 The following tolerances are permitted for steel posts, rails, or gate frames:

-Tolerance from specified weight ± 10 percent

-Tolerance from specified dimensions ± 5 percent

31.2 A tolerance from the specified dimensions for aluminum alloy posts, rails, and gate frames will be allowed in accordance with ANSI H35.2.