

SECTION 02825
(PVC) Vinyl Coated Fabric on
Vinyl Coated Allied SS 40™ Metal Fence Framework

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. PVC coated chain link fencing and accessories.
- B. Fence Framework

1.02 SUBMITTALS

- A. Changes in specifications may not be made after the published date of bid. All submittals of substitutions must be approved before bid date.
- B. Shop drawings of fences and gates with all dimensions, details, and finishes. Drawings must include post foundations.
- C. Product data: Manufacturer's catalog indicating materials and a letter certifying that all conditions of the specifications have been met.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Framework to be manufactured by:

Allied Tube & Conduit Corporation, 16100 S. Lathrop Ave., Harvey, IL 60426
1-800-643-1523

- B. Chain link fences and gates must be obtained from a single source.

2.02 CHAIN LINK FENCE FABRIC

- A. PVC coated over galvanized steel wire per ASTM F 668,
Choose one:
 - Class 1 – Extruded
 - or Class 2a – Extruded and Adhered (Bonded)
 - or Class 2b – Thermally Fused (and Bonded)

Wire to have 75,000 psi (517 MPa) tensile strength.

- B. Chain link fence fabric shall be made of steel wire helically wound and interwoven in such a manner as to provide a continuous mesh without knots or ties except in the form of knuckling or twisting the ends of the wire to form the desired selvage of the fabric. Height of 8'-0" diamond mesh, and a core wire diameter of 7 Guage (4.5 mm). Color To Be Decided By Owner (Choose from dark green, olive green, brown or black.)
- C. Selvage of fabric _____ top; _____ bottom.

2.03 PVC COATED STEEL FENCE FRAME MEMBERS

- A. Steel pipe produced in accordance with commercial standards. Minimum yield strength of 50,000 psi (344 MPa). Cold formed and welded per ASTM F 1043 Group IC. SS 40™ Fence Framework as manufactured by Allied Tube & Conduit.
- C. An outer coat of PVC in accordance with ASTM F 1043, 7.3, in color to match fabric.
- D. End and Corner Post 3" od
Line (intermediate) Post 3"od
Rail and Braces 3" od

2.04 GATES

- A. Chain link swing gates as per ASTM F 900 Specifications for Industrial and Commercial Swing Gates.
- B. Chain link cantilever slide gates per ASTM F 1184, Specifications for Industrial and Commercial Horizontal Slide Gates.

2.05 FITTINGS (All PVC Coated)

- A. Chain link fence fittings per ASTM F 626. All ferrous metal fittings to be galvanized and coated with PVC to match framework and fabric.
- B. Post caps: Steel, cast iron or aluminum alloy; must be weatherproof to prevent moisture intrusion into post. Top with arm to be provided when barbed wire is specified. Intermediate or line post tops to have loop for top rail when specified.
- C. Rail ends: Formed steel or iron, designed to provide secure connection of top rails to terminal post and brace or other rails to terminal and intermediate posts.
- D. Sleeves: Lengths of top rails to be connected using 6" (152 mm) sleeves with a .055 minimum wall thickness that allow for expansion or contraction of the rail.
- E. Tie Wire: 9 gauge [0.148" (3.76 mm)] galvanized steel or aluminum for attachment of chain link fabric to rails. Hog rings attach fabric to tension wire to be 12-1/2 GA [0.0985" (2.502 mm)] steel.
- F. Fabric bands and brace bands to be pressed steel.
- G. Tension (stretcher) bars to be made of one continuous piece of steel or aluminum, 3/16" x 3/4" (4.76 mm x 19 mm), in the same height as the fence. Provide one bar, per end or gate post and two bars per corner or pull post.
- H. Tension wire: Galvanized steel wire, 7 gauge [0.177" (4.5 mm)] core, vinyl coated, having a tensile strength of 75,000 psi (517 MPa).
- I. Truss rods & tightened. Rod diameter 5/16" (7.9 mm).
- J. Fasteners. All nuts and bolts to be galvanized before color coating.
- K. Barbed wire: Galvanized coated steel wire, double strand, 13 gauge, twisted line wire with aluminized steel 4 point barbs, spaced approximately 3" or 5" on center (choose one). Strand wires to be PVC coated.
- L. Barbed wire supporting arms: Pressed steel arms with provisions for attaching 3 rows of barbed wire. Arms shall withstand 250 lb. (113.5 kg) downward pull at outermost end of arm without failure.

2.06 SETTING MATERIALS

- A. Concrete: Minimum 28 day compressive strength of 3,000 psi (20 MPa).

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify areas to receive fencing are completed to final grades and elevations.
- B. Property lines and legal boundaries of work to be clearly established by the general contractor or property owner.

3.02 CHAIN LINK FENCE FRAMING INSTALLATION

- A. Install chain link fence in accordance with ASTM F 567.
- B. Space the posts equal distant 10' (3.05 mm) maximum center to center of posts.
- C. Set terminal posts at beginning and end of each continuous length of fence and where abrupt changes in grade or direction of fence occur (30° or more).
- D. Set post in concrete. Dig Holes having a diameter 4 times the diameter of the post, and 6" (152 mm) deeper than the bottom of the post. Forms are not necessary or recommended. Crown concrete at top to shed water (except for tennis courts).
- E. Check each post for vertical and top alignment.
- F. Securely attach brace rail and truss rod at midpoint of all fences 6' high and over, or any fence without top rail. Adjust rod to insure posts remain vertically plumb after fabric is stretched. One brace per end or gate post. Two braces per corner or pull post.
- G. Tension wire: Install tension wire at bottom of fabric [and at top, if top rail is not specified]. Install tension wire before stretching fabric and attach to each post with ties. Secure tension wire to fabric with 12-1/2 gauge [0.0985" (2.502 mm)] hog rings 24" (610 mm) o/c. Tension wire to be PVC coated. (Bottom tension wire is optional.)
- H. Top rail: Install lengths, 21' (6400 mm). Connect joints with sleeves for rigid connections for expansion/contraction.

- I. Center rails are to be installed when fence fabric is 12' (3658 mm) or higher, or when shown on drawings.
- J. Bottom rails (optional) to be installed when shown on drawings.

3.03 CHAIN LINK FABRIC INSTALLATION

- A. Fabric: Install fabric on security side and attach so that the fabric remains in tension after pulling force is released. Leave approximately 2" (50 mm) between finish grade and bottom selvage. Attach fabric with wire ties to line posts at 15" (381 mm) on center and to rails, braces, and tension wire at 24" (600 mm) on center.
- B. Stretcher bars: Thread tension bar through fabric and attach to terminal posts with bands or clips spaced maximum of 15" (381 mm) on center.

3.04 ACCESSORIES

- A. Barbed wire: Uniformly space parallel rows of barbed wire on security side of fence. Pull wire taut and attach to each extension arm.

3.05 CLEANING

- A. Clean up debris and remove from the site.