



WESTERN TUBE & CONDUIT CORPORATION

Super 40 Fence Tube Specifications

Steel - The basic steel used in making the product conforms to the requirements of **ASTM A-1011 (formerly A-569), ASTM A-1008 (formerly A-366) and ASTM A-568**. The yield strength of the finished tubing is a minimum of 50,000 PSI (345mPa).

Zinc - The steel is coated with high purity zinc that conforms to the requirements of **ASTM B6**. The application process involves pouring molten zinc onto the steel tube (hot dipping) while the tubing is traveling down the process line. Then a chromate conversion coating is chemically produced on the tubing per the requirements of **ASTM F-1043**. The zinc is applied with a target thickness that provides a weight of at least 1.0 oz/ft², and minimum thickness requirement providing a weight of 0.9 oz/ft². The zinc coating complies with the requirements of **ASTM A-153 and ASTM F-1234 (replaced by F-1043)** Zinc is determined by using **ASTM A-90 and ASTM A-239**.

Coatings - The interior of the tubing is coated with a zinc-rich organic polymer having a minimum zinc content of 87% that provides a seal as well as providing the superior protection of zinc. The exterior receives, on top of the zinc and chromate conversion layer, a clear organic polymer coating to further retarded any corrosion. The minimum thickness of both the interior and exterior coatings is 0.3 mills.

Salt Spray - WTC Super 40 has a superior corrosion resistance and is able to withstand a salt spray (fog) with no red rust on the exterior after 950 hours, less than 5% red rust on the exterior after 1000 hours and less than 5% red rust on the interior after 650 hours when tested in accordance with **ASTM B-117**.

WT&C's Super 40 Fencepost is produced in Long Beach, CA, USA, from steel that is domestic (melted, poured and rolled in the USA). As such, the product meets all "**Buy America**", "**Buy American**", and **ARRA** (American Recovery and Reinvestment Act of 2009) requirements.

Performance Specifications - WTC Super 40 complies with the requirements of the following Specifications:

AASHTO M181-05 (American Association of State Highway and Transportation Officials) - Standard Specification for Chain-Link Fence.

U.S. FEDERAL SPECIFICATIONS **RR-F-191/2D and RR-F-191/3D** - Detail Specifications for Fencing, Wire and Post, Metal Chain-Link Fence Post, Top Rails and Braces and Fence Gates.

ASTM F-1043 (American Society for Testing and Materials) - Standard Specification for Strength and Protective Coatings on Metal Industrial Chain-Link Fence Framework.

CLFMI (Chain-Link Fence Manufacturers Institute) **PRODUCT MANUAL** - Standard Guide for Metallic-Coated Steel Chain-Link Fence and Fabric.

U.S.DOT-FAA **AC 150/5370-10A ITEM F-162** - (U.S. Department of Transportation Federal Aviation Administration) - Chain-Link Fences.

U.S. DEPT. OF JUSTICE, FEDERAL BUREAU OF PRISONS - **DESIGN GUIDELINES SECTION 02834**-Perimeter Security Fence.

U.S. UFGS (Unified Facilities Guide Specifications) **NAVFAC UF 02821N** - Chain-Link Fences and Gates.

AIA (American Institute of Architects) **MASTERSPEC - Section 02821** - Chain Link Fence.

Industry Size Designation	O.D.		Nom. Wall Thickness		Nom. Weight		Section Modulus	Min Yield Strength	Max Bending Moment	Calculated Load (lbs)		
										10' Free	Cantilever	
	in.	mm.	in.	mm.	lb./ft.	Kg./m.	in.	psi.	lb. in.	Supported	4'	6'
1 3/8"	1.315	33.40	0.104	2.64	1.35	2.01	0.111	50000	5555	185	116	77
1 5/8"	1.660	42.16	0.111	2.82	1.84	2.74	0.196	50000	9807	327	204	136
1 7/8"	1.900	48.26	0.120	3.05	2.28	3.39	0.281	50000	14050	468	293	195
2 3/8"	2.375	60.33	0.130	3.30	3.12	4.64	0.488	50000	24405	814	508	339
2 7/8"	2.875	73.03	0.160	4.06	4.64	6.90	0.878	50000	43890	1463	914	610
3 1/2"	3.500	88.90	0.160	4.06	5.71	8.50	1.341	50000	67040	2235	1397	931
4"	4.000	101.60	0.160	4.06	6.56	9.76	1.782	50000	89095	2970	1856	1237