

GALVANIZED SCHEDULE 40 PIPE

ASTM F 1083
ASTM F 1043, GROUP 1A
FEDERAL SPECIFICATION RR-F-191/3E, TYPE 1, GRADE A
AASHTO M-181, GRADE 1

BASIC USE

This submittal Data Sheet covers hot-dipped galvanized Schedule 40 welded steel pipe used for fence structures such as end, corner or line posts and rails. This product is commonly used for commercial, industrial and institutional installations in both the private and public sectors, such as airports, prisons, highway right-of-ways, military bases, parks, schools and commercial buildings.

Schedule 40 is typically used in conjunction with zinc coated or aluminum coated chain link fence fabric. However it may also be specified for other types of fabrics such as PVC coated and welded wire.

COMPOSITION AND MATERIALS

Schedule 40 pipe is produced from steel manufactured by the electric furnace, open hearth or basic oxygen process. The steel is of soft weldable quality. Welded pipe NPS 4 and under in size may be butt-welded, while pipe over NPS 4 is typically electric welded.

TECHNICAL DATA

HOT-DIPPED GALVANIZED: Pipe shall be coated inside and out by the hot-dip process. The average weight of zinc coating shall be not less than 1.8 oz/ft² of the outside surface and 1.8 oz/ft² of the inside surface, determined from the average results of two specimens taken for test, and not less than 1.6 oz/ft² for either of these specimens. The weight of zinc coating is determined in accordance with ASTM A90/A90M.

TENSILE REQUIREMENTS

Regular Grade Schedule 40 – Tensile Strength,
min. 48,000 psi

Regular Grade Schedule 40 – Yield Strength,
min. 30,000 psi

PERMISSABLE VARIATIONS

Wall Thickness: Minimum wall thickness shall not be more than 12.5% under that specified.

Outside Diameter:

1.900 in. O.D. and under +0.016 in. -0.031 in.

2.375 in. O.D. and over 1%

Weight Per Foot – Pipe shall not vary more than 10% from the standard specified.

*Sizes, wall thickness, weights and strength, characteristics are listed in Table 1.

STANDARD SPECIFICATIONS

AASHTO M 181 – Grade 1 (American Association of State Highway and Transportation Officials)

RR-F-191/3E Grade A (Federal Specifications)

UFGS-32 31 13 (Army Corps of Engineers)

FAA – ITEM F-162 (Federal Aeronautics Administration)

ASTM F-1083 (American Society of Testing and Materials)

ASTM F-1043, Group 1A (American Society of Testing and Materials)

FBOP (U.S. Department of Justice – Federal Bureau of Prisons)

LEED CREDITS

Steel fence products are net contributors to the LEED recycled content points.

INSTALLATION

Install fence framework in accordance with ASTM F-567.

MAINTENANCE

Periodic inspection is recommended, but no routine maintenance is required.

TECHNICAL SERVICES



Jamieson Fence Supply
 Technical Sales Department
 Phone: 800-527-6464
 Fax: 214-337-2061
 www.jamiesonfence.com

DIMENSIONS AND STRENGTH CHARACTERISTICS

FENCE INDUSTRY	DECIMOL O.D. EQUIVALENT		PIPE WALL THICKNESS		WEIGHT		SECTION MODULUS		X	MIN. YIELD STRENGTH		=	MAX. BENDING MOMENT	CALCULATED LOAD (LB.)				
	O.D.	IN	MM	IN	MM	LB/FT	KG/M	IN ²		MM ³	PSI			MPC	LB.IN.	10' FREE SUPPORTED	CONTILEVER	
																	4'	6'
1-3/8"	1.315	33.40	0.133	3.38	1.68	2.50	0.1328	3.37	x	30000	205	=	3985	133	83	55		
1-5/8"	1.660	42.16	0.140	3.56	2.27	3.38	.02346	5.96	x	30000	205	=	7038	235	147	98		
1-7/8"	1.900	48.26	0.145	3.68	2.72	4.05	0.3262	6.29	x	30000	205	=	9786	326	204	136		
2-3/8"	2.375	60.33	0.154	3.91	3.65	5.43	0.5606	14.24	x	30000	205	=	16819	561	350	234		
2-7/8"	2.875	73.03	0.203	5.16	5.80	8.62	1.0640	27.03	x	30000	205	=	31921	1064	665	443		
3-1/2"	3.500	86.90	0.216	5.49	7.85	11.28	1.7241	43.79	x	30000	205	=	51723	1724	1078	718		
4"	4.000	101.60	0.226	5.74	9.12	13.56	2.3939	60.80	x	30000	205	=	71816	2394	1496	997		
4-1/2"	4.500	114.30	0.237	6.02	10.80	16.07	3.2145	81.65	x	30000	205	=	96435	3214	2009	1399		
*5-9/16"	5.663	141.30	0.258	6.55	14.63	21.77	5.4511	138.46	x	35000	240	=	190789	6359	3975	2650		
*6-5/8"	6.625	168.28	0.280	7.11	18.99	28.23	8.4958	215.79	x	35000	240	=	297353	9912	6195	4130		
*8-5/8"	6.625	219.08	0.322	8.18	28.58	42.49	16.8091	426.95	x	35000	240	=	588319	19610	12257	8171		