Heavy Mil PVC Coated Schedule 40 Pipe

ASTM 1083, ASTM F1043 Group 1A
Federal Specification RR-F-191/3E & RR F-191/4E
AASHTO M-181 Grade 2

BASIC USE

Framework is a high strength, galvanized steel fence posts and rails with a polymer coating. It is approved by use by the U.S. Federal Government for road, airport, commercial, industrial and institutional applications.

COMPOSITION AND MATERIALS

Framework receives its armor-like heavy mil (10 mils minimum) thermoplastic vinyl finish using a multi-step coating process resulting in a durable weather resistant coating, which protects the product from cracking, chipping or peeling.

CLEANING AND SURFACE PREPARATION

Application of the heavy mil coating begins with a proprietary cleaning process in which each individual piece of pipe travels through a gas fired industrial process "washer" where it is subject to the pressurized cleaning solution delivered in four stages during the cleaning and surface pretreatment cycle. An Iron phosphate coating is applied as part of this process, which provides both enhanced adhesion of the finish coating as well as additional corrosion protection for the steel surface.

The final step in the surface preparation process after exiting the washer is the total immersion of the pipe in high quality water based epoxy primer.

PVC THERMOPLASTIC COATING APPLICATION

The thermoplastic PVC finish coating is applied using the "Fluidized Bed" powder application technique. The cleaning and prime coated pipe is preheated above the melting point of the vinyl powder. Upon exiting the oven, the heated pipe is immersed in the fluidized bed of vinyl powder where the store heat in the pipe "picks up" the appropriate amount of powder, which thermally fuses and adheres to the heated pipe surface. The now molten vinyl coating which has adhered to the heated pipe surface is then immersed in cold water where it hardens to the solid vinyl finish and the pipe is cooled to packaging temperature.

TECHNICAL DATA

GENERAL

The manufacturer or distributor, if requested, will supply certification that materials furnished will be in compliance with applicable specifications.

The information contained herein for Schedule 40 Regular strength covers the requirement for fence industry pipe sizes 1-5/8" O.D. to 8-5/8" O.D.

STRENGTH CHARACTERISTICS

Load Strength – The strength of Line, End, Corner, and Pull posts shall be determined by the use of a 4' or 6' cantilevered bend test. The top rail shall be determined by a 10' free-supported beam test. See table below:

Yield Strength

Schedule 40 pipe shall be cold rolled with a minimum yield strength of 30,000 psi

STANDARD SPECIFICATIONS

ASTM F1043 Strength and Protective Coatings on Metal Industrial Chain Link Fence Framework Group 1-A

(Sch. 40 1.8 oz only) Group 1-A

ASTM F567 Installations of Chain Link Fence

ASTM F934 Standard Colors for Polymer-Coated Chain Link Fence Materials

Federal Specification RR-F-191K/3E Fencing, Wire and Post Metal (Chain Link Fence Posts, Top Rails, and Braces), Class 1 Grade A or B

AASHTO M-181 Chain Link Fence, Grade 2 (American Association of State Highway Transportation Officials) Grades 1 and 2

ASTM Color System

All components conform to the color requirements of ASTM F934. Other colors may be available by special order.

Heavy Mil PVC Coated Schedule 40 Pipe

ASTM 1083, ASTM F1043 Group 1A
Federal Specification RR-F-191/3E & RR F-191/4E
AASHTO M-181 Grade 2

Adhesion Test

Test shall be in accordance with ASTM F1043 para. 8.1.4.1 specification

AVAILABILITY

Heavy Mil Schedule 40 pipe is available for shipment throughout the United States. Mil lengths may range from 18 ft to 24 ft and posts are available cut-to-length.

INSTALLATION

Install fence posts in accordance with ASTM Practice 567

WARRANTY

Heavy Mil pipe framework has a 15-year factory warranty against failure due to rust or corrosion.

MAINTENANCE

No routine maintenance is required. Heavy Mil framework should be handled with care. If the finish is damaged, contractor must repair.

TECHNICAL SERVICES

Master Halco Inc.
1.888.643.3623
www.MasterHalco.com
Contact@MasterHalco.com

Heavy Mil - Schedule 40 Pipe - Dimension and Strength Characteristics

Fence Industry	Decimal O.D. Equivalent		Pipe Wall Thickness		Weight		Section Modulus		X	Min. Yield Strength		=	Max Bending Moment	Calculated Load (lbs.)		
														10 ft. Free Supported	Cantilever	
O.D.	In.	mm	In.	mm	lb./ft.	kg/m	$in.^3$	mm^3		psi	Mpa		lb./in.		4 ft.	6 ft.
1-5/8 in.	1.660	42.16	0.140	3.56	2.270	3.38	0.2346	5.96	X	30,000	205	=	7,038	235	147	96
1-7/8 in.	1.900	48.26	0.145	3.68	2.720	4.05	0.3262	8.29	X	30,000	205	=	6,786	326	204	136
2-3/8 in	2.375	60.33	0.154	3.91	3.650	5.43	0.5606	14.24	X	30,000	205	=	16,819	561	350	234
2-7/8 in.	2.875	70.03	0.203	5.16	5.800	8.62	1.0640	27.03	X	30,000	205	=	31,921	1064	665	443
3-1/2 in.	3.500	88.9	0.216	5.49	7.580	11.28	1.7241	43.79	X	30,000	205	=	51,723	1724	1078	718
4 in	4.000	101.6	0.226	5.74	9.120	13.56	2.3939	60.80	X	30,000	205	=	71,816	2394	1496	997
*6-5/8 in	6.625	168.3	0.280	7.11	18.990	28.23	8.4958	215.79	X	35,000	240	=	297,353	9912	6195	4130
*8-5/8 in.	8.625	219.1	0.322	8.18	28.580	42.49	16.8091	426.95	X	30,000	240	=	588,319	19610	12257	8171

*Manufactured to ASTM A53, exceeds F1083 requirements