



# ASTM A53 SCH 40, 80 Grade A & B

Black and Hot Dip Galvanized Steel Pipes

Nominal Pipe	Outside diameter		Wall thickness		Nominal Weight (mass) per unit Length, Plain End			Test Pressure for Plain End Pipe				Nominal Weight (Mass) per unit Length, Threaded & Coupled			Test Pressure for Threaded & Coupled			
	Standard		Standard		kg/mtr	lb/ft	Schedule	Grade A		Grade B		kg/mtr	lb/ft	Schedule	Grade A		Grade B	
	Inch	mm	Inch	mm				psi	kpa	psi	kpa				psi	kpa	psi	kpa
1/2"	0.840	21.3	0.109	2.77	1.27	0.850	40	700	4800	700	4800	1.27	0.860	40	700	4800	700	4800
3/4"	1.050	26.7	0.113	2.87	1.69	1.130	40	700	4800	700	4800	1.69	1.140	40	700	4800	700	4800
1"	1.315	33.4	0.133	3.38	2.50	1.680	40	700	4800	700	4800	2.5	1.690	40	700	4800	700	4800
			0.179	4.55	3.24	2.170	80	850	5900	850	5900	3.25	2.19	80	850	5900	850	5900
1.1/4"	1.660	42.2	0.140	3.56	3.39	2.270	40	1200	8300	1300	9000	3.4	2.280	40	1000	6900	1100	7600
			0.191	4.85	4.47	3.000	80	1800	12400	1900	13100	4.49	3.03	80	1500	10300	1600	11000
1.1/2"	1.900	48.3	0.145	3.68	4.05	2.720	40	1200	8300	1300	9000	4.04	2.740	40	1000	6900	1100	7600
			0.200	5.08	5.41	3.630	80	1800	12400	1900	13100	5.39	3.65	80	1500	10300	1600	11000
2"	2.375	60.3	0.154	3.91	5.44	3.660	40	2300	15900	2500	17200	5.46	3.680	40	2300	15900	2500	17200
			0.218	5.54	7.48	5.030	80	2500	17200	2500	17200	7.55	5.08	80	2500	17200	2500	17200
2.1/2"	2.875	73.0	0.203	5.160	8.63	5.800	40	2500	17200	2500	17200	8.67	5.850	40	2500	17200	2500	17200
			0.276	7.010	11.41	7.670	80	2500	17200	2500	17200	11.52	7.75	80	2500	17200	2500	17200
3"	3.500	88.9	0.216	5.490	11.29	7.580	40	2220	15300	2500	17200	11.35	7.680	40	2200	15200	2500	17200
			0.300	7.620	15.27	10.260	80	2500	17200	2500	17200	15.39	10.35	80	2500	17200	2500	17200
3.1/2"	4.000	101.6	0.226	5.740	13.57	9.120	40	2030	14000	2370	16300	13.71	9.270	40	2000	13800	2400	16500
			0.318	8.080	18.63	12.520	80	2800	19300	2800	19300	18.82	12.67	80	2800	19300	2800	19300
4"	4.500	114.3	0.237	6.020	16.07	10.800	40	1900	13100	2210	15200	16.23	10.920	40	1900	13100	2200	15200
			0.337	8.560	22.32	15.000	80	2700	18600	2800	19300	22.60	15.20	80	2700	18600	2800	19300
5"	5.563	141.3	0.258	6.550	21.77	14.630	40	1670	11500	1950	13400	22.07	14.900	40	1700	11700	1900	13100
6"	6.625	168.3	0.280	7.110	28.26	18.990	40	1520	10500	1780	12300	28.58	19.340	40	1500	10300	1800	12400

1. Toleranca) On Thickness	: As per standard	4. Mechanical - Grade A	: Min Yield Strength - 205 N/mm2, Tensile Strength - 330 N/mm2,
b) On Diameter	: For NPS 11/2" & under any point shall not vary more than ±0.4mm. For NPS 2" & above shall not vary more than ± 1% from the standard	5. Mechanical - Grade B	: Yeild Strength - 240 N/mm2, Tensile Strength - 415 N/mm2,
c) On Weight	: The weight of the pipe shall not more than ±10% of the specified		
2. Chemical Composition Grade A	: % Max C - 0.25%, Mn 0.95%, S - 0.045%, P - 0.050%, Cu - 0.40% Ni - 0.40%, Cr - 0.40%, Mo - 0.15% & V - 0.08% (Cu+Ni+Cr+Mo+V=1.0% max)		
3. Chemical Composition Grade B	: % Max C -0.30%, Mn 1.20%, S - 0.045%, P -0.050%, Cu - 0.40%, Ni - 0.40%, Cr - 0.40%, Mo - 0.15% & V - 0.08% (Cu+Ni+Cr+Mo+V= 1.0% Max)		