

TECHNICAL DATA OF BLACK AND HOT DIP GALVANIZED STEEL PIPES CONFORMING TO ASTM A 135/A795 GRADE A / B

NOMINAL PIPE SIZE		OUTSIDE DIAMETER		WALL THICKNESS		WEIGHT OF BLACK PIPES				TEST PRESSURE	
		STANDARD		STANDARD		PLAIN END PIPES				PSI	KPA
INCH	MM	INCH	MM	INCH	MM	KG/MTR	MTR/TON	LB/FT	FT/TON		
3/4	20	1.050	26.7	0.083*	2.11	1.28	781	0.86	2562	700	4830
1	25	1.315	33.4	0.109*	2.77	2.09	478	1.41	1568	700	4830
1.1/4	32	1.660	42.2	0.109*	2.77	2.69	372	1.81	1221	1000	6890
1.1/2	40	1.900	48.30	0.109*	2.77	3.11	322	2.09	1056	1000	6890
2	50	2.375	60.3	0.109*	2.77	3.93	254	2.64	833	1000	6890
2.1/2	65	2.875	73.0	0.120*	3.05	5.26	190	3.53	623	1000	6890
3	80	3.500	88.9	0.120*	3.05	6.46	155	4.34	509	1000	6890
3.1/2	90	4.000	101.6	0.120*	3.05	7.41	135	4.98	443	1200	8270
4	100	4.500	114.3	0.120*	3.05	8.37	119	5.62	390	1200	8270
5	125	5.563	141.3	0.134*	3.40	11.58	86	7.78	283	1200	8270
6	150	6.625	168.3	0.134*	3.40	13.85	72	9.30	237	1000	6890
8	200	8.625	219.1	0.188**	4.78	25.26	40	16.96	130	800	5520

* Schedule 10 Thickness

** Not Schedule 10

CHEMICAL PROPERTIES

ELEMENT →	Carbon C	Manganese Mn	Phosphorus P	Sulphur S
GRADE-A	0.25	0.95	0.035	0.035
GRADE-B	0.30	1.20	0.035	0.035

MECHANICAL PROPERTIES

Properties →	Tensile Strength		Yield Strength	
	psi	MPa	psi	MPa
Grade-A	48000	330	30000	205
Grade-B	60000	415	35000	240

Min percent elongation in 2" (50mm) is

% El (Grade-A) = 56t + 16.5

% El (Grade-B) = 48t + 14

Where t = specified wall thickness (inch)

TOLERANCES

OUTSIDE DIAMETER

SIZE FROM INCH (MM)	SIZE TO INCH (MM)	TOLERANCE INCH(MM)	
		POSITIVE	NEGATIVE
3/4 (20)	1.1/2(40)	1/64 (0.40)	1/64 (0.40)
2 (50)	8 (200)	1% OF OD	1% OF OD

THICKNESS

12.5% max under the nominal wall thickness.

WEIGHT

+/-10% on calculated standard nominal weight.

MARKING

HEAT TREATMENT

Weld seam of the ERW pipe in Grade-B shall be heat treated after welding to a minimum temperature of 1000°F [540°C] so that no untempered martensite remains.

ZINC COATING

MINIMUM: 1.30 oz / ft² [400 Gm / Mtr²]

AVERAGE : 1.50 oz / ft² [460 Gm / Mtr²]

FLATTENING TEST

STAGE-1 : For weld ductility until 2/3 of outside dia of specimen tube.

STAGE-2 : For ductility of steel until 1/3 of outside dia of specimen tube.

STAGE-3 : Full flattening for testing of laminated and unsound material.