



STEEL TUBES FOR STRUCTURAL PURPOSE

Conforming to IS : 1161-2014

Nominal Size (NB)		Outside Diameter (OD)	Thickness (T)		Black Tubes	Plain End
mm	Inch	mm	mm	SWG	Kg/Meter	Meter/Ton
15	(1/2")	21.30	2.0	14	0.95	1050
			2.6	12	1.20	833
			3.2	10	1.43	699
20	(3/4")	26.90	2.3	13	1.40	714
			2.6	12	1.56	641
			3.2	10	1.87	535
25	(1")	33.70	2.6	12	1.99	503
			3.2	10	2.41	415
			4.0	8	2.93	341
32	(1 1/4")	42.40	2.6	12	2.55	392
			3.2	10	3.09	324
			4.0	8	3.79	264
40	(1 1/2")	48.30	2.9	11	3.25	308
			3.2	10	3.56	281
			4.0	8	4.37	229
50	(2")	60.30	2.9	11	4.11	243
			3.6	9	5.03	199
			4.5	7	6.19	162
65	(2 1/2")	76.10	2.9	10	5.24	191
			3.6	9	6.44	155
			4.5	7	7.95	126
80	(3")	88.90	3.2	10	6.76	148
			4.0	8	8.38	119
			4.8	6	9.96	100
100	(4")	114.30	3.6	9	9.83	102
			4.5	7	12.19	82
			5.4	5	14.50	69
125	(5")	139.70	4.5	7	15.00	67
			4.8	6	15.97	63
			5.4	5	17.89	56
150	(6")	165.10	4.5	7	17.82	56
			4.8	5	18.98	53
			5.4	5	21.27	47
			5.9	4	23.20	43
175	(7")	193.70	4.8	6	22.36	45
			5.4	5	25.08	40
			5.9	4	27.33	37

Chemical Properties

As per IS-10748:2004 (Gr-1 to Gr-5).

Physical Properties & Tolerances

Grade	T.S. (MPa) (Min.)	Y.S. (MPa) (Min.)	Elong. (%) (Min.)
YSt 210	330	210	20
YSt 240	410	240	17
YSt 310	450	310	14
YSt 355	490	355	10

Note: Elongation percentage for tubes upto and including 25mm NB bore for all grades shall be 12 minimum.

Tolerances :

Weight :

Single tube	:	±10%
For 10 tonne lots	:	±7.5%

Outside diameter:

Upto and including 48.3mm	:	+0.4, -0.8mm
Over 48.3mm	:	±1%

Thickness

For all sizes	:	±10%
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