

Chemical Composition

	Max
Carbon	-
Silicon	-
Manganese	-
Phosphorus	0.04
Sulphur	0.04
Steel Grade : SGP	

Mechanical Properties

	Min
Tensile	290 MPa
Yield	-
Elongation	19 - 25 up to wall thickness

JIS G3452: CARBON STEEL PIPES FOR ORDINARY PIPING

Nominal Diameter		Outside Diameter (mm)			Wall Thickness		Unit mass excluding socket	Hydrostatic Test
DN	size	std	Pipes to be cut in taper thread	Other pipes	mm	Tolerances	kg/m	MPa (Bar)
15	1/2"	21.7	± 0.5 mm	± 0.5 mm	2.8	-12.5% +Not specified	1.31	2.5 (25)
20	3/4"	27.2	± 0.5 mm	± 0.5 mm	2.8		1.68	2.5 (25)
25	1"	34	± 0.5 mm	± 0.5 mm	3.2		2.43	2.5 (25)
32	1-1/4"	42.7	± 0.5 mm	± 0.5 mm	3.5		3.38	2.5 (25)
40	1-1/2"	48.6	± 0.5 mm	± 0.5 mm	3.5		3.89	2.5 (25)
50	2"	60.5	± 0.5 mm	± 1%	3.8		5.31	2.5 (25)
65	2-1/2"	76.3	± 0.7 mm	± 1%	4.2		7.47	2.5 (25)
80	3"	89.1	± 0.8 mm	± 1%	4.2		8.79	2.5 (25)
90	3-1/2"	101.6	± 0.8 mm	± 1%	4.2		10.1	2.5 (25)
100	4"	114.3	± 0.8 mm	± 1%	4.5		12.2	2.5 (25)
125	5"	139.8	± 0.8 mm	± 1%	4.5		15	2.5 (25)
150	6"	165.2	± 0.8 mm	± 1.6%	5.0		19.8	2.5 (25)

Chemical Composition

	STPG 370	STPG 410
	Max	Max
Carbon	0.25	0.30
Silicon	0.35	0.35
Manganese	0.3 - 0.9	0.3 - 1.0
Phosphorus	0.04	0.04
Sulphur	0.04	0.04

Mechanical Properties

	STPG 370	STPG 410
	Min	Min
Tensile	370 MPa	410 MPa
Yield	215 MPa	245 MPa
Elongation	30%	25%

JIS G3454: CARBON STEEL PIPES FOR ORDINARY PIPING

Nominal Diameter		Outside Diameter (mm)			Wall Thickness			Unit Mass	Schedule	Test Pressure
DN	size	std	min	max	std	min	max	kg/m		Bar
15	1/2"	21.7	21.4	22.0	2.8	2.5	3.1	1.31	40	60
					3.2	2.88	3.52	1.46	60	90
20	3/4"	27.2	26.9	27.5	2.9	2.6	3.2	1.74	40	60
					3.4	3.06	3.74	2.0	60	90
25	1"	34	33.7	34.3	3.4	3.06	3.74	2.57	40	60
					3.9	3.51	4.29	2.89	60	90
					4.5	4.05	4.95	3.27	80	120
32	1-1/4"	42.7	42.4	43	3.6	3.24	3.96	3.47	40	60
					4.5	4.05	4.95	4.24	60	90
					4.9	4.41	5.39	4.57	80	120
40	1-1/2"	48.6	48.2	49.0	3.7	3.33	4.07	4.1	40	60
					4.5	4.05	4.95	4.89	60	90
					5.1	4.59	5.61	5.47	80	120
50	2"	60.5	60.0	61.0	3.2	2.88	3.52	4.52	20	35
					3.9	3.51	4.29	5.44	40	60
					4.9	4.41	5.39	6.72	60	90
					5.5	4.95	6.05	7.46	80	120
65	2-1/2"	76.3	75.7	76.9	4.5	4.05	4.95	7.97	20	35
					5.2	4.68	5.72	9.12	40	60
					6.0	5.4	6.6	10.4	60	90
					7.0	6.3	7.7	12	80	120
80	3"	89.1	88.4	89.8	4.5	4.05	4.95	9.39	20	35
					5.5	4.95	6.05	11.3	40	60
					6.6	5.94	7.26	13.4	60	90
					7.6	6.84	8.36	15.3	80	120
90	3-1/2"	101.6	100.8	102.4	4.5	4.05	4.95	10.8	20	35
					5.7	5.13	6.27	13.5	40	60
					7.0	6.3	7.7	16.3	60	90
					8.1	7.29	8.91	18.7	80	120
100	4"	114.3	113.4	115.2	4.9	4.41	5.39	13.2	20	35
					6.0	5.4	6.6	16	40	60
					7.1	6.39	7.81	18.8	60	90
					8.6	7.74	9.46	22.4	80	120
125	5"	139.8	138.7	140.9	5.1	4.59	5.61	16.9	20	35
					6.6	5.94	7.26	21.7	40	60
					8.1	7.29	8.91	26.3	60	90
					9.5	8.55	10.45	30.5	80	120
150	6"	165.2	163.9	166.5	5.5	4.95	6.05	21.7	20	35
					7.1	6.39	7.81	27.7	40	60
					9.3	8.37	10.23	35.8	60	90
					11.0	9.9	12.1	41.8	80	120

TOLERANCE

OD	DN ≤ 25 mm: ± 0.3 mm DN ≥ 32 mm: ± 0.8%
WT	t < 3.0 mm: ± 0.3 mm t ≥ 3.0 mm: ± 10%
Weight	± 10%