

Product Specification

Material of Grade	Chemical Composition (%)					Mechanical Properties			Color Code
	C	Si	Mn	P	S	Yield Strength	Tensile Strength	Elongation	
	Max	Max	Max	Max	Max	N/mm ²	N/mm ²	%	
STK400	0.250	-	-	0.040	0.040	235	400	23	White
STK490	0.180	0.550	1.500	0.040	0.040	315	490	23	White

Nominal Size		Thickness	Weight	Cross Sectional Area	Geometrical Moment of Inertia	Modulus of Section	Radius of Gyration
					I _x I _y	Z _x Z _y	i _x i _y
In	mm	mm	kg/m	cm ²	cm ⁴	cm ³	cm
1-1/2" x 1-1/2"	40 x 40	1.60	1.88	2.392	5.79	2.90	1.56
		2.30	2.62	3.332	7.73	3.86	1.52
2" x 2"	50 x 50	1.60	2.38	3.032	11.7	4.68	1.96
		2.30	3.34	4.252	15.9	6.34	1.93
		3.20	4.50	5.727	20.4	8.16	1.89
2-1/2" x 2-1/2"	60 x 60	1.60	2.88	3.672	20.7	6.89	2.37
		2.30	4.06	5.172	28.3	9.44	2.34
		3.20	5.50	7.007	36.9	12.3	2.30
3" x 3"	75 x 75	1.60	3.64	4.632	41.3	11.0	2.99
		2.30	5.14	6.552	57.1	15.2	2.95
		3.20	7.01	8.927	75.5	20.1	2.91
		4.50	9.55	12.17	98.6	26.3	2.85
3-1/4" x 3-1/4"	80 x 80	2.30	5.50	7.012	69.9	17.5	3.16
		3.20	7.51	9.567	92.7	23.2	3.11
		4.50	10.30	13.07	122	30.4	3.05
3-1/2" x 3-1/2"	90 x 90	2.30	6.23	7.932	101	22.4	3.56
		3.20	8.51	10.85	135	29.9	3.52
4" x 4"	100 x 100	2.30	6.95	8.852	140	27.9	3.97
		3.20	9.52	12.13	187	37.5	3.93
		4.00	11.70	14.95	226	45.3	3.89
		4.50	13.10	16.67	249	49.9	3.87
		6.00	17.00	21.63	311	62.3	3.79
		9.00	24.10	30.67	408	81.6	3.65
		12.00	30.20	38.53	471	94.3	3.50
5" x 5"	125 x 125	3.20	12.00	15.33	376	60.1	4.95
		4.50	16.60	21.17	506	80.9	4.89
		5.00	18.30	23.36	553	88.4	4.86
		6.00	21.70	27.63	641	103	4.82
		9.00	31.10	39.67	865	138	4.67
		12.00	39.70	50.53	1030	165	4.52

Dimension Tolerances

Outside Diameter ; ≤ 100 mm. : ± 1.5 mm.
; > 100 mm. : ± 1.5%

Thickness ; < 3.0 mm. : ± 0.3 mm.
; ≥ 3.0 mm. : ± 10%

Weight ; N/A



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	C	Si	Mn	P	S	Yield Strength	Tensile Strength	Elongation	
	Max	Max	Max	Max	Max	N/mm ²	N/mm ²	%	
STKR400	0.250	-	-	0.040	0.040	245	400	23	White
STKR490	0.180	0.550	1.500	0.040	0.040	325	490	23	White

Nominal Size		Thickness	Weight	Cross Sectional Area	Geometrical Moment of Inertia		Modulus of Section		Radius of Gyration	
					I _x	I _y	Z _x	Z _y	i _x	i _y
In	mm	mm	kg/m	cm ²	cm ⁴	cm ⁴	cm ³	cm ³	cm	cm
2" x 3/4"	50 x 20	1.60	1.63	2.072	6.08	1.42	2.43	1.42	1.71	0.829
		2.30	2.25	2.872	8.00	1.83	3.20	1.83	1.67	0.798
2" x 1-1/4"	50 x 30	1.60	1.88	2.392	7.96	3.60	3.18	2.40	1.82	1.23
		2.30	2.62	3.332	10.6	4.76	4.25	3.17	1.79	1.20
2-1/2" x 1-1/4"	60 x 30	1.60	2.13	2.712	12.5	4.25	4.16	2.83	2.15	1.25
		2.30	2.98	3.792	16.8	5.65	5.61	3.76	2.11	1.22
		3.20	3.99	5.087	21.4	7.08	7.15	4.72	2.05	1.18
3" x 3/4"	75 x 20	1.60	2.25	2.872	17.6	2.10	4.69	2.10	2.47	0.855
		2.30	3.16	4.022	23.7	2.73	6.31	2.73	2.43	0.824
3" x 1-3/4"	75 x 45	1.60	2.88	3.672	28.4	12.9	7.56	5.75	2.78	1.88
		2.30	4.06	5.172	38.9	17.6	10.4	7.82	2.74	1.84
		3.20	5.5	7.007	50.8	22.8	13.5	10.1	2.69	1.80
3-1/4" x 1-1/2"	80 x 40	1.60	2.88	3.672	30.7	10.5	7.68	5.26	2.89	1.69
		2.30	4.06	5.172	42.1	14.3	10.5	7.14	2.85	1.66
		3.20	5.50	7.007	54.9	18.4	13.7	9.21	2.80	1.62
3-1/2" x 1-3/4"	90 x 45	2.30	4.60	5.862	61.0	20.8	13.6	9.22	3.23	1.88
		3.20	6.25	7.967	80.2	27.0	17.8	12.0	3.17	1.84
4" x 3/4"	100 x 20	1.60	2.88	3.672	38.1	2.78	7.61	2.78	3.22	0.870
		2.30	4.06	5.172	51.9	3.64	10.4	3.64	3.17	0.839
4" x 1-1/2"	100 x 40	1.60	3.38	4.312	53.5	12.9	10.7	6.44	3.52	1.73
		2.30	4.78	6.092	73.9	17.5	14.8	8.77	3.48	1.70
		4.20	8.32	10.60	120	27.6	24.0	13.8	3.36	1.61
4" x 2"	100 x 50	1.60	3.64	4.632	61.3	21.1	12.3	8.43	3.64	2.13
		2.30	5.14	6.552	84.8	29.0	17.0	11.6	3.60	2.10
		3.20	7.01	8.927	112	38.0	22.5	15.2	3.55	2.06
		4.50	9.55	12.17	147	48.9	29.3	19.5	3.47	2.00
5" x 1-1/2"	125 x 40	1.60	4.01	5.112	94.4	15.8	15.1	7.91	4.30	1.76
		2.30	5.69	7.242	131	21.6	20.9	10.8	4.25	1.73
5" x 3"	125 x 75	2.30	6.95	8.852	192	87.5	30.6	23.3	4.65	3.14
		3.20	9.52	12.13	257	117.0	41.1	31.1	4.60	3.10
		4.00	11.70	14.95	311	141.0	49.7	37.5	4.56	3.07
		4.50	13.10	16.67	342	155.0	54.8	41.2	4.53	3.04
		6.00	17.00	21.63	428	192.0	68.5	51.1	4.45	2.98

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Nominal Size		Thickness	Weight	Cross Sectional Area	Geometrical Moment of Inertia		Modulus of Section		Radius of Gyration	
					I _x	I _y	Z _x	Z _y	i _x	i _y
In	mm	mm	kg/m	cm ²	cm ⁴	cm ⁴	cm ³	cm ³	cm	cm
6" x 3"	150 x 75	3.20	10.80	13.73	402	137	53.6	36.6	5.41	3.16
6" x 3-1/4"	150 x 80	4.50	15.20	19.37	563	211	75.0	52.9	5.39	3.30
		5.00	16.80	21.36	614	230	81.9	57.5	5.36	3.28
		6.00	19.80	25.23	710	264	94.7	66.1	5.31	3.24
6" x 4"	150 x 100	3.20	12.00	15.33	488	262	65.1	52.5	5.64	4.14
		4.50	16.60	21.17	658	352	87.7	70.4	5.58	4.08
		6.00	21.70	27.63	835	444	111	88.8	5.5	4.01
		9.00	31.10	39.67	1130	595	151	119	5.33	3.87

Dimension Tolerances

Outside Diameter ; ≤ 100 mm. : ± 1.5 mm.

> 100 mm. : ± 1.5%

Thickness ; < 3.0 mm. : ± 0.3 mm.

≥ 3.0 mm. : ± 10%

Weight ; N/A

