

Mild Steel Channels, Flats, Angles and Square Bars

Type	Specification	Chemical Composition (Ladle Analysis)			Tensile Properties						Bend Test		
					Yield Stress (MN/m ²)		Tensile Strength (MN/m ²)	Elongation			Bending Angle	Inside radius	Test Piece
		t<16mm	16<t<40mm	t<5mm				5<t<16mm	16<t<50mm				
		C%	P%	S%	Test Pc. No. 5	Test Pc. No. 1A		Test Pc. No. 1A					
Flat Bar	JIS G3101 1976, Class 2 SS 400	—	0.050 max.	0.050 max.	245 min.	235 min.	402 to 510	21% min.	17% min.		180°	1.5t*	No.1
Angle Bar													
Square Bar													

Note: t* = Thickness of flat, angle and square bar

Mild Steel Flat Bars

METRIC SERIES

Section size		Unit weight M kg/m	Section area A cm ²	Section size		Unit weight M kg/m	Section area A cm ²
thickness	width			thickness	width		
mm	mm			mm	mm		
3	12	0.283	0.3600	9	65	4.59	5.850
3	16	0.377	0.4800	9	75	5.30	6.750
3	19	0.447	0.5700	9	90	6.36	8.100
3	25	0.589	0.7500	9	100	7.06	9.000
3	32	0.754	0.9600	9	125	8.83	11.25
3	38	0.895	1.14	9	150	10.6	13.50
3	50	1.18	1.500	9	180	12.7	16.20
4.5	25	0.88	1.125	9	200	14.1	18.00
4.5	32	1.13	1.440	9	230	16.2	20.70
4.5	38	1.34	1.710	9	250	17.7	22.50
4.5	44	1.55	1.980	12	25	2.36	3.000
4.5	50	1.77	2.250	12	32	3.01	3.840
6	14	0.66	0.84	12	38	3.58	4.560
6	32	1.51	1.920	12	44	4.14	5.280
6	38	1.79	2.280	12	50	4.71	6.000
6	44	2.07	2.640	12	65	6.12	7.800
6	50	2.36	3.000	12	75	7.06	9.000
6	65	3.06	3.900	12	90	8.48	10.80
6	75	3.53	4.500	12	100	9.42	12.00
6	90	4.24	5.400	12	125	11.8	15.00
6	100	4.71	6.000	12	150	14.1	18.00
6	125	5.89	7.500	12	180	17.0	21.60
8	25	1.57	2.000	12	200	18.8	24.00
8	32	2.01	2.560	12	230	21.7	27.60
8	38	2.39	3.040	12	250	23.6	30.00
8	44	2.76	3.520	12	280	26.4	33.60
8	50	3.14	4.000	12	300	28.3	36.00
8	65	4.08	5.200	16	32	4.02	5.120
8	75	4.71	6.000	16	38	4.77	6.080
8	90	5.65	7.200	16	44	5.53	7.040
8	100	6.28	8.000	16	50	6.28	8.000
8	125	7.85	10.00	16	65	8.16	10.40
9	25	1.77	2.250	16	75	9.42	12.00
9	32	2.26	2.880	16	90	11.3	14.40
9	38	2.68	3.420	16	100	12.6	16.00
9	44	3.11	3.960	16	125	15.7	20.00
9	50	3.53	4.500	16	150	18.8	24.00