



## Comparison between general structural steel specifications

The following specifications are normally readily available, but offers depend upon acceptance of full specification details or specifications not listed below.

Quality	Grade	Min. Yield strength		Min. Tensile strength		Chemical composition (% , max.)					
		N/mm <sup>2</sup>	ksi	N/mm <sup>2</sup>	ksi	C	Si	Mn	P	S	Nb
<b>BS 4360</b> (1986) (superseded)	43A	275	40	430/580	62/84	0.25	0.50	1.60	0.050	0.05	-
	50B	355	52	490/640	71/93	0.22	0.50	1.50	0.050	0.05	0.003/0.10
	55C	450	65	550/700	80/102	0.22	0.60	1.60	0.040	0.04	0.003/0.10
<b>EN 10025</b> (2004)	S275J0	275	40	410/560	59/81	0.18	-	1.50	0.040	0.04	0.009
	S355J0	355	52	490/630	71/91	0.20	0.55	1.60	0.040	0.04	0.009
<b>EN 10113</b> (1993) (superseded)	S275N	275	40	370/510	54/74	0.20	0.40	0.5/1.40	0.035	0.03	0.050
	S355N	355	52	470/630	68/91	0.20	0.50	0.9/1.65	0.035	0.03	0.050
	460M	460	67	530/720	77/104	0.18	0.60	1.70	0.030	0.025	0.05
<b>ASTM A36</b> (2001)	-	250	36	400/550	58/80	0.26	0.40	-	0.040	0.05	-
<b>ASTM A283</b> (1993)	Grade D	230	33	415/550	60/80	0.27	0.40	0.90	0.035	0.04	-
<b>ASTM A572</b> (2001)	42	290	42	415	60	0.21	0.40	1.35	0.050	0.04	-
	50	345	50	450	65	0.23	0.40	1.35	0.050	0.04	-
	55	380	55	485	70	0.25	0.40	1.35	0.050	0.04	-
	60	415	60	520	75	0.26	0.40	1.35	0.050	0.04	-
	65	450	65	550	80	0.23	0.40	1.65	0.050	0.04	-
<b>ASTM A913</b> (2001)	50	345	50	450	65	0.12	0.40	1.60	0.040	0.03	0.05
	65	450	65	550	80	0.16	0.40	1.60	0.030	0.03	0.05
<b>JIS G 3101</b> (1995)	SS 400	245	36	400/510	58/74	-	-	-	0.050	0.05	-
	SS 490	285	41	490/610	71/88	-	-	-	0.050	0.05	-
<b>JIS G 3106</b> (1995)	SM 400B	245	36	400/510	58/74	0.20	0.35	0.6/1.40	0.035	0.035	-
	SM 490B	325	47	490/610	71/88	0.18	0.55	1.60	0.035	0.035	-
	SM 490YB	365	53	490/610	71/88	0.20	0.55	1.60	0.035	0.035	-
<b>JIS G 3136</b> (1994)	SN 400B	235	34	400/510	58/74	0.20	0.35	0.6/1.40	0.030	0.015	-
	SN 490B	325	47	490/610	71/88	0.18	0.55	1.60	0.030	0.015	-
<b>JIS G 3131</b>	SPHC	-	-	270	39	0.15	-	0.60	0.50	0.050	-
	SPHD	-	-	270	39	0.10	-	0.50	0.40	0.040	-
	SPHE	-	-	270	39	0.10	-	0.50	0.30	0.035	-
<b>AS3679</b> 1996	C250LO	260	38	410	59	0.20	0.40	1.50	0.040	0.04	-
	C350LO	360	52	480	70	0.22	0.50	1.60	0.040	0.04	-
<b>GB700-88</b>	Q235	235	34	375/406	54/59	0.22	0.30	0.65	0.045	0.05	-
<b>DIN 17100</b>	St 37.2	235	34	340/470	49/68	0.17	-	-	0.050	0.05	-
	St 44.2	275	40	410/540	59/78	0.21	-	-	0.050	0.05	-
	St 50.2	295	43	470/610	68/88	-	-	-	0.050	0.05	-
	St 52.3	355	51	490/630	71/91	0.20	0.55	1.60	0.040	0.04	-
<b>GOST1050-88</b>	08 KP	-	-	260/380	38/55	0.12	0.03	0.50	0.035	0.04	-



## Mild Steel Plates

Metric units 7.85kg/mm m<sup>2</sup> - 0.7293 kg/mm ft<sup>2</sup>

Width x Length (ft)		4 x 8	4 x 16	5 x 10	5 x 20	6 x 20	8 x 20	10 x 30
Thickness	Weight	Weight / pc						
mm	kg/ft <sup>2</sup>	kg	kg	kg	kg	kg	kg	kg
1.2	0.875	28.0	-	43.8	-	-	-	-
1.5	1.094	35.0	-	54.7	-	-	-	-
1.6	1.167	37.3	-	58.3	-	-	-	-
1.9	1.386	44.3	-	69.3	-	-	-	-
2.3	1.677	53.7	-	83.9	-	-	-	-
2.6	1.896	60.7	-	94.8	-	-	-	-
3	2.188	70.0	-	109	219	-	-	-
3.2	2.334	74.7	-	117	-	-	-	-
4.0	2.917	93.3	187	146	292	350	-	-
4.5	3.282	105	210	164	328	394	-	-
5	3.647	117	233	182	365	438	-	-
6	4.376	140	280	219	438	525	700	1313
6.35	4.631	148	296	232	463	556	741	1389
7.5	5.470	175	350	273	547	656	875	1641
8	5.834	187	373	292	583	700	934	1750
9	6.564	210	420	328	656	788	1050	1969
9.53	6.950	222	445	348	695	834	1112	2085
10	7.293	233	467	365	729	875	1167	2188
12	8.752	280	560	438	875	1050	1400	2625
12.7	9.262	296	593	463	926	1111	1482	2779
13	9.481	303	607	474	948	1138	1517	2844
14	10.21	327	653	511	1021	1225	1634	3063
15	10.94	350	700	547	1094	1313	1750	3282
16	11.67	373	747	583	1167	1400	1867	3501
18	13.13	420	840	656	1313	1575	2100	3938
19	13.86	443	887	693	1386	1663	2217	4157
20	14.59	467	934	729	1459	1750	2334	4376
21	15.32	490	980	766	1532	1838	2450	4595
22	16.04	513	1027	802	1604	1925	2567	4813
24	17.50	560	1120	875	1750	2100	2801	5251
25	18.23	583	1167	912	1823	2188	2917	5470
25.4	18.52	593	1186	926	1852	2223	2964	5557
28	20.42	653	1307	1021	2042	2450	3267	6126
29	21.15	677	1354	1057	2115	2538	3384	6345
30	21.88	700	1400	1094	2188	2625	3501	6564
32	23.34	747	1494	1167	2334	2801	3734	7001
35	25.53	817	1634	1277	2553	3064	4085	7659
36	26.25	840	1680	1313	2625	3151	4201	7876
38	27.71	887	1774	1386	2771	3326	4434	8314
40	29.17	934	1867	1459	2917	3501	4668	8752
44	32.09	1027	2054	1605	3209	3851	5134	9627
45	32.82	1050	2100	1641	3282	3938	5251	9846
50	36.47	1167	2334	1823	3647	4376	5834	10940
55	40.11	1284	2567	2006	4011	4813	6418	12033
57	41.57	1330	2660	2079	4157	4988	6651	12471
60	43.76	1400	2801	2188	4376	5251	7001	13127
63.5	46.31	1482	2964	2316	4631	5557	7410	13893
65	47.40	1517	3034	2370	4740	5689	7585	14221
70	51.05	1634	3267	2553	5105	6126	8168	15315
75	54.70	1750	3501	2735	5470	6564	8752	16409

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Metric units 7.85kg/mm m<sup>2</sup> - 0.7293 kg/mm ft<sup>2</sup>



Width x Length (ft)		4 x 8	4 x 16	5 x 10	5 x 20	6 x 20	8 x 20	10 x 30
Thickness	Weight	Weight / pc						
mm	kg/ft <sup>2</sup>	kg	kg	kg	kg	kg	kg	kg
80	58.34	1867	3734	2917	5834	7001	9335	17503
90	65.64	2100	4201	3282	6564	7876	10502	19691
100	72.93	2334	4668	3647	7293	8752	11669	21879
110	80.22	2567	5134	4011	8022	9627	12836	24067
120	87.52	2801	5601	4376	8752	10502	14003	26255
125	91.16	2917	5834	4558	9116	10940	14586	27349
130	94.81	3034	6068	4740	9481	11377	15169	28443
140	102.1	3267	6535	5105	10210	12252	16336	30631
150	109.4	3501	7001	5470	10940	13127	17503	32819

Table 26 – Plates: Sizes of Mild Steel Plates

## Chequered Plates

Metric units 8.08kg/mm m<sup>2</sup> - 0.7507 kg/mm ft<sup>2</sup>

Width x Length (ft)		4x 8	4 x 10	4 x 16	4 x 20	5 x 10	5 x 20
Thickness	Weight	Weight / pc					
mm	kg/ft <sup>2</sup>	kg	kg	kg	kg	kg	Kg
2.3	1.73	55.2	69.1	111	138	86.3	-
3	2.25	72.0	90.1	144	180	113	-
3.2	2.40	76.8	96.1	154	192	120	-
4	3.00	96.1	120	192	240	150	-
4.3	3.23	103	129	207	258	161	-
4.5	3.38	108	135	216	270	169	-
5	3.75	120	150	240	300	188	-
5.8	4.35	139	174	279	348	218	435
6	4.50	144	180	288	360	225	450
7.5	5.63	180	225	360	450	282	563
8	6.01	192	240	384	480	300	601
9	6.76	216	270	432	541	338	676
12	9.01	288	360	576	721	450	901

Table 27 – Plates: Sizes of Chequered Plates