

7. Plates

Flat steel product that can be used for structural and construction applications, shipbuilding and offshore equipment.

- 7.1 Plates
- 7.2 Sheets
- 7.3 Chequered Plates

Plates

Standard specifications

Material	Yield strength							Tensile strength N/mm ²	Min. Elongation L ₀ =5.65√S ₀	Min. Charpy V-notch.	Dimensions & Tolerances
	N/mm ²										
AS 3678	≤8mm	>8 - ≤12mm	>12 - ≤20mm	>20 - ≤32mm	>32 - ≤50mm	>50 - ≤80mm	>80 - ≤150mm				AS 3678
Grade 250	280	260	250	250	250	240	230	min. 410	22%	27J @ 0°C	
Grade 300	320	310	300	280	280	270	260	min. 430	21%	27J @ 0°C	
Grade 350	360	360	350	340	340	340	330	min. 450	20%	27J @ 0°C	
Grade 400	400	400	380	360	360	360	-	min. 480	18%	27J @ 0°C	
Grade 450	450	450	450	420	400	-	-	min. 500	18%	27J @ 0°C	
ASTM A36 (1996)	min. 250							400-550	20-21 %	-	ASTM A6
ASTM A131											
Grade AH36	355							490-620	22%	50J @ 0°C	
Grade DH36	355							490-620	22%	50J @ -20°C	
Grade EH36	355							490-620	22%	50J @ -40°C	
API 2W											ASTM A6
Grade 50	345							448	23%	41J @ -40°C	
EN 10025	≤16mm	>16 - ≤40mm	>40 - ≤63mm	>63 - ≤80mm	>80 - ≤100mm	>100 - ≤150mm	>150 - ≤200mm	3-100mm			EN10029
S275JR	275	265	255	245	235	225	215	410-560	18-23 %	27J @ 20°C	
S355JR	355	345	335	325	315	295	285	470-630	17-22 %	27J @ 20°C	
S355J0	355	345	335	325	315	295	285	470-630	17-22 %	27J @ 0°C	
S355J2	355	345	335	325	315	295	285	470-630	17-22 %	27J @ -20°C	
S460M	460	440	430	410	400	385	-	500-720	17%	40J @ -20°C	
EN 10225	≤25mm	>25 - ≤40mm	>40 - ≤63mm	>63 - ≤100mm							EN10029
S355G10+M / S355MLO	355	345	335	325	-	-	-	470-630	22%	50J @ -40°C	
JIS 3101	≤16mm	>16 - ≤40mm	>40 - ≤100mm	>100mm				t<100mm			JIS 3193
SS400	245	235	215	205	-	-	-	400-510	17-23 %	-	
SS490	285	275	255	245	-	-	-	490-610	15-21 %	-	
SS540	400	390	-	-	-	-	-	540	13-17 %	-	
JIS 3106	≤16mm	>16 - ≤40mm	>40 - ≤75mm	>75 - ≤100mm	>100 - ≤160mm	>160 - ≤200mm		t<100mm			
SM400A	245	235	215	215	205	195	-	400-510	18-24 %	-	
SM400B	245	235	215	215	205	195	-	400-510	18-24 %	27J @ 0°C	
SM400C	245	235	215	215	205	195	-	400-510	18-24 %	47J @ 0°C	
SM490A	325	315	295	295	285	275	-	490-610	17-23 %	-	
SM490B	325	315	295	295	285	275	-	490-610	17-23 %	27J @ 0°C	
SM490C	325	315	295	295	-	-	-	490-610	17-23 %	47J @ 0°C	
SM490YA	365	355	335	325	-	-	-	490-610	15-21 %	-	
SM490YB	365	355	335	325	-	-	-	490-610	15-21 %	27J @ 0°C	
SM520B	365	355	335	325	-	-	-	520-640	15-21%	27J @ 0°C	
SM520C	365	355	335	325	-	-	-	520-640	15-21 %	47J @ 0°C	

7.1 Plates

Metric units 7.85kg/mm m² – 0.7293 kg/mm ft²

Thickness	Unit Weight	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
t	M	Weight / pc	Weight / pc	Weight / pc	Weight / pc	Weight / pc	Weight / pc	Weight / pc
mm	kg/ft ²	kg	kg	kg	kg	kg	kg	kg
6	4.376	140	280	219	438	525	700	1313
7	5.105	163	327	255	511	613	817	1532
8	5.834	187	373	292	583	700	934	1750
9	6.564	210	420	328	656	788	1050	1969
10	7.293	233	467	365	729	875	1167	2188
11	8.022	257	513	401	802	963	1284	2407
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
17	12.40	397	793	620	1240	1488	1984	3719
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
23	16.77	537	1074	839	1677	2013	2684	5032
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
26	18.96	607	1214	948	1896	2275	3034	5689
27	19.69	630	1260	985	1969	2363	3151	5907
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

Dimensions 4ft x 8ft to 10ft x 40ft

Specification EN10025/ ASTM A 36/ ASTM A 572/ EN10225/ ASTM A131/ API2W/ ASME A 516

Size Range Thickness 6mm to 150mm

Thickness	Unit Weight	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
t	M	Weight / pc	Weight / pc	Weight / pc	Weight / pc	Weight / pc	Weight / pc	Weight / pc
mm	kg/ft ²	kg	kg	kg	kg	kg	kg	kg
32	23.34	747	1494	1167	2334	2801	3734	7001
34	24.80	793	1587	1240	2480	2976	3967	7439
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
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
60	43.76	1400	2801	2188	4376	5251	7001	13127
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
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