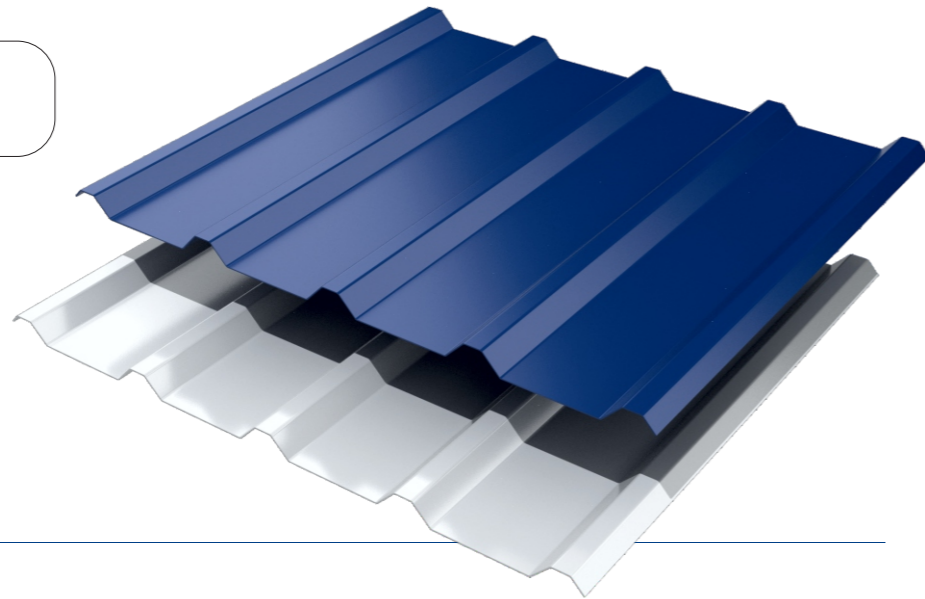
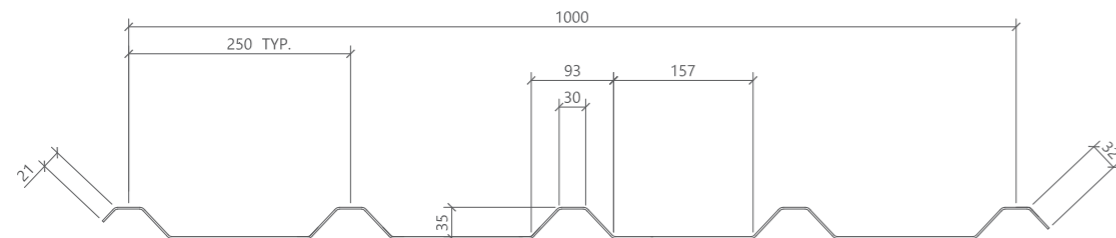


AM 35/250®



Design Information



Sectional Properties : AM 35/250® Aluminum

Thickness (mm)	Self weight (kg/m <sup>2</sup> )	Moment of Resistance (KN-m/m)		Moment of Inertia (cm <sup>4</sup> /m)
		Positive	Negative	
0.50	1.670	0.253	0.248	7.52
0.60	1.980	0.347	0.340	10.1
0.70	2.310	0.440	0.431	12.7
0.80	2.630	0.527	0.516	14.9
0.90	2.960	0.600	0.588	16.9
1.00	3.290	0.660	0.647	18.6

Material : Aluminium sheets conforming to Grade AA-3105, Temper H-16

Aluminium: Permissible Span (mm)

U. D. unfactored Loads KN/LM	Single Span			Double Span			Triple Span		
	Deflection			Deflection			Deflection		
	L/100	L/150	L/200	L/100	L/150	L/200	L/100	L/150	L/200
<b>0.50 mm Thick</b>									
0.50	<b>2005</b>	1754	1593	<b>2133</b>	<b>2133</b>	<b>2133</b>	2192	1915	1740
0.75	<b>1637</b>	1532	1392	<b>1741</b>	<b>1741</b>	<b>1741</b>	1915	1673	1520
1.00	<b>1418</b>	1392	1265	<b>1508</b>	<b>1508</b>	<b>1508</b>	<b>1686</b>	1520	1381
1.50	<b>1157</b>	<b>1157</b>	1105	<b>1231</b>	<b>1231</b>	<b>1231</b>	<b>1377</b>	1328	1206
2.00	<b>1002</b>	<b>1002</b>	<b>1002</b>	<b>1066</b>	<b>1066</b>	<b>1066</b>	<b>1192</b>	<b>1192</b>	1096
2.50	<b>897</b>	<b>897</b>	<b>897</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>1066</b>	<b>1066</b>	1017
<b>0.60 mm Thick</b>									
0.50	2217	1936	1759	<b>2368</b>	<b>2368</b>	<b>2358</b>	2421	2115	1921
0.75	<b>1924</b>	1692	1537	<b>1933</b>	<b>1933</b>	<b>1933</b>	2115	1847	1678
1.00	<b>1666</b>	1537	1396	<b>1674</b>	<b>1674</b>	<b>1674</b>	<b>1872</b>	1678	1525
1.50	<b>1361</b>	1343	1220	<b>1367</b>	<b>1367</b>	<b>1367</b>	<b>1528</b>	1466	1332
2.00	<b>1178</b>	<b>1178</b>	1108	<b>1184</b>	<b>1184</b>	<b>1184</b>	<b>1324</b>	<b>1324</b>	1210
2.50	<b>1054</b>	<b>1054</b>	<b>1029</b>	<b>1059</b>	<b>1059</b>	<b>1059</b>	<b>1184</b>	<b>1184</b>	1124

Aluminium: Permissible Span (mm)

U. D. unfactored Loads KN/LM	Single Span			Double Span			Triple Span		
	Deflection			Deflection			Deflection		
	L/100	L/150	L/200	L/100	L/150	L/200	L/100	L/150	L/200
<b>0.70 mm Thick</b>									
0.50	2390	2088	1897	<b>2577</b>	<b>2577</b>	2543	2610	2280	2071
0.75	2088	1824	1657	<b>2104</b>	<b>2104</b>	<b>2104</b>	2280	1991	1809
1.00	<b>1882</b>	1657	1505	<b>1823</b>	<b>1823</b>	<b>1823</b>	<b>2038</b>	1809	1644
1.50	<b>1537</b>	1447	1315	<b>1488</b>	<b>1488</b>	<b>1488</b>	<b>1664</b>	1581	1436
2.00	<b>1331</b>	1315	1195	<b>1289</b>	<b>1289</b>	<b>1289</b>	<b>1441</b>	1436	1305
2.50	<b>1190</b>	<b>1190</b>	1109	<b>1153</b>	<b>1153</b>	<b>1153</b>	<b>1289</b>	<b>1289</b>	1211
<b>0.80 mm Thick</b>									
0.50	2521	2202	2001	<b>2790</b>	<b>2790</b>	2682	2753	2405	2185
0.75	2202	1924	1748	<b>2278</b>	<b>2278</b>	<b>2278</b>	2405	2101	1909
1.00	2001	1748	1588	<b>1973</b>	<b>1973</b>	<b>1973</b>	2185	1909	1734
1.50	<b>1677</b>	1527	1387	<b>1611</b>	<b>1611</b>	<b>1611</b>	<b>1875</b>	1667	1515
2.00	<b>1452</b>	1387	1260	<b>1395</b>	<b>1395</b>	<b>1395</b>	<b>1624</b>	1515	1376
2.50	<b>1299</b>	1288	1170	<b>1248</b>	<b>1248</b>	<b>1248</b>	<b>1452</b>	1406	1278
<b>0.90 mm Thick</b>									
0.50	2629	2297	2087	<b>2969</b>	<b>2969</b>	2797	2871	2508	2278
0.75	2297	2006	1823	<b>2425</b>	<b>2425</b>	<b>2425</b>	2508	2191	1990
1.00	2087	1823	1656	<b>2100</b>	<b>2100</b>	<b>2100</b>	2278	1991	1808
1.50	<b>1792</b>	1592	1447	<b>1714</b>	<b>1714</b>	<b>1714</b>	<b>1917</b>	1739	1580
2.00	<b>1552</b>	1447	1314	<b>1485</b>	<b>1485</b>	<b>1485</b>	<b>1660</b>	1580	1435
2.50	<b>1388</b>	1343	1220	<b>1328</b>	<b>1328</b>	<b>1328</b>	<b>1485</b>	1467	1332
<b>1.00 mm Thick</b>									
0.50	2714	2371	2154	<b>3115</b>	<b>3115</b>	2888	2964	2589	2352
0.75	2371	2071	1882	<b>2543</b>	<b>2543</b>	2523	2589	2262	2055
1.00	2154	1882	1710	<b>2203</b>	<b>2203</b>	<b>2203</b>	2352	2055	1867
1.50	<b>1880</b>	1644	1494	<b>1799</b>	<b>1799</b>	<b>1799</b>	<b>2011</b>	1795	1631
2.00	<b>1628</b>	1494	1357	<b>1558</b>	<b>1558</b>	<b>1558</b>	<b>1741</b>	1631	1482
2.50	<b>1457</b>	1387	1260	<b>1393</b>	<b>1393</b>	<b>1393</b>	<b>1558</b>	1514	1376

Figures in bold represent spans that are governed by bending moment. Calculations are based on BS 8118 - Part 1 (1998) and on a limiting stress 170 N/MM<sup>2</sup>



**Sectional Properties : AM 35/250® GI (Galvanized Iron)**

Thickness (mm)	Self weight (kg/m <sup>2</sup> )	Moment of Inertia (cm <sup>4</sup> /m)	Section Modulus (cm <sup>3</sup> /m)	Ultimate +ve moment of Resistance KN-m/m
0.35 (28ga)	3.351	4.64	1.84	0.65
0.40 (26ga)	3.830	5.31	2.10	0.74
0.45 (25ga)	4.380	5.98	2.36	0.83
0.50 (24ga)	4.870	6.65	2.62	0.92
0.55 (23ga)	5.360	7.31	2.89	1.01
0.60 (22ga)	5.750	7.98	3.15	1.10
0.70 (21ga)	6.700	9.31	3.67	1.29

Material : GI sheets conforming to ASTM A-653, Yield Strength 350 N/mm<sup>2</sup>

**Steel : Permissible Span (mm)**

U. D. unfactored Loads KN/LM	Single Span			Double Span			Triple Span		
	Deflection			Deflection			Deflection		
	L/100	L/150	L/200	L/100	L/150	L/200	L/100	L/150	L/200
<b>0.50 mm Thick</b>									
0.50	3543	3095	2812	<b>3654</b>	<b>3654</b>	<b>3654</b>	3868	3379	3070
0.75	3095	2703	2456	<b>2984</b>	<b>2984</b>	<b>2984</b>	<b>3336</b>	2952	2682
1.00	2812	2456	2232	<b>2584</b>	<b>2584</b>	<b>2584</b>	<b>2889</b>	2682	2437
1.50	2370	2146	1950	<b>2110</b>	<b>2110</b>	<b>2110</b>	<b>2359</b>	2343	2129
2.00	2053	1950	1771	<b>1827</b>	<b>1827</b>	<b>1827</b>	<b>2043</b>	<b>2043</b>	1934
2.50	1836	1810	1644	<b>1634</b>	<b>1634</b>	<b>1634</b>	<b>1827</b>	<b>1827</b>	1796
<b>0.60 mm Thick</b>									
0.50	3779	3301	2999	<b>4028</b>	<b>4028</b>	4021	4127	3605	3275
0.75	3301	2884	2620	<b>3289</b>	<b>3289</b>	<b>3289</b>	3605	3149	2861
1.00	2999	2620	2381	<b>2848</b>	<b>2848</b>	<b>2848</b>	<b>3184</b>	2861	2600
1.50	2618	2289	2080	<b>2325</b>	<b>2325</b>	<b>2325</b>	<b>2600</b>	2500	2271
2.00	2268	2080	1890	<b>2014</b>	<b>2014</b>	<b>2014</b>	<b>2252</b>	<b>2252</b>	2063
2.50	2028	1931	1754	<b>1801</b>	<b>1801</b>	<b>1801</b>	<b>2014</b>	<b>2014</b>	1915
<b>0.70 mm Thick</b>									
0.50	3977	3474	3156	<b>4373</b>	<b>4373</b>	4231	4342	3793	3446
0.75	3474	3035	2757	<b>3571</b>	<b>3571</b>	<b>3571</b>	3793	3314	3011
1.00	3156	2757	2505	<b>3092</b>	<b>3092</b>	<b>3092</b>	3446	3011	2735
1.50	2757	2409	2188	<b>2525</b>	<b>2525</b>	<b>2525</b>	<b>2823</b>	2630	2390
2.00	2450	2188	1988	<b>2187</b>	<b>2187</b>	<b>2187</b>	<b>2445</b>	2390	2171
2.50	2191	2032	1846	<b>1956</b>	<b>1956</b>	<b>1956</b>	<b>2187</b>	<b>2187</b>	2016
<b>0.80 mm Thick</b>									
0.50	4149	3625	3293	<b>4696</b>	<b>4696</b>	4415	4531	3958	3596
0.75	3625	3167	2877	<b>3834</b>	<b>3834</b>	<b>3834</b>	3958	3458	3142
1.00	3293	2877	2614	<b>3321</b>	<b>3321</b>	<b>3321</b>	3596	3142	2854
1.50	2877	2513	2283	<b>2711</b>	<b>2711</b>	<b>2711</b>	<b>3031</b>	2744	2494
2.00	2612	2283	2075	<b>2348</b>	<b>2348</b>	<b>2348</b>	<b>2625</b>	2494	2266
2.50	2336	2120	1926	<b>2100</b>	<b>2100</b>	<b>2100</b>	<b>2348</b>	2315	2103
<b>0.90 mm Thick</b>									
0.50	4305	3761	3417	<b>5000</b>	<b>5000</b>	4581	4701	4107	3731
0.75	3761	3286	2985	<b>4082</b>	<b>4082</b>	4002	4107	3588	3260
1.00	3417	2985	2712	<b>3536</b>	<b>3536</b>	<b>3536</b>	3731	3260	2962
1.50	2985	2608	2369	<b>2887</b>	<b>2887</b>	<b>2887</b>	<b>3227</b>	2848	2587
2.00	2712	2369	2153	<b>2500</b>	<b>2500</b>	<b>2500</b>	<b>2795</b>	2588	2351
2.50	2470	2199	1998	<b>2236</b>	<b>2236</b>	<b>2236</b>	<b>2500</b>	2402	2182
<b>1.00 mm Thick</b>									
0.50	4448	3886	3531	<b>5287</b>	5209	4733	4857	4243	3855
0.75	3886	3395	3084	<b>4317</b>	<b>4317</b>	4134	4243	3707	3368
1.00	3531	3084	2802	<b>3739</b>	<b>3739</b>	<b>3739</b>	3855	3368	3060
1.50	3084	2694	2448	<b>3053</b>	<b>3053</b>	<b>3053</b>	3368	2942	2673
2.00	2802	2448	2224	<b>2644</b>	<b>2644</b>	<b>2644</b>	<b>2956</b>	2673	2429
2.50	2594	2273	2065	<b>2365</b>	<b>2365</b>	<b>2365</b>	<b>2644</b>	2482	2255

Figures in bold represent spans that are governed by bending moment.  
Calculations are based on BS 5950 - Part 5 (1987) and on a yield stress of 350 N/MM<sup>2</sup>

ALMEC manufactures and sells insulated metal panels for roofs and walls with a high coefficient thermal insulation for civil, industrial, commercial and livestock construction.

A wide range of products, colors and finishes allows the creation of customized solutions and innovative design.

ALMEC ables to offer even mounting hardware, sheet metal for finishes and rainwater collection, translucent and polycarbonate corrugated elements for skylights.

Continuous innovation in products and processes, high quality standards, broad product diversification and great attention for the Client have made ALMEC a reliable partner for many Omani and International companies for which we offers competitive advantage and value.