



Sheet Metal Gauge Chart

For Metal Manufacturing Professionals

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Gauge 1–30 | inch, mm, lb/ft², kg/m² | Steel, galvanized steel, stainless steel, aluminum, brass, copper

Weight formula $\text{lb/ft}^2 = \text{thickness(in)} \times \text{density(lb/ft}^3) \div 12$

Metric conversion $\text{kg/m}^2 = \text{lb/ft}^2 \times 4.882427636$

Thickness conversion $\text{mm} = \text{inch} \times 25.4$

	Material	Density (lb/in³)	Density (g/cm³)	Density (kg/m³)
Density of Materials	Cold Rolled Steel	0.283	7.85	7850
	Galvanized Steel	0.283	7.85	7850
	Stainless Steel	0.289	8	8000
	Aluminum	0.098	2.7	2700
	Brass	0.307	8.5	8500
	Copper	0.323	8.96	8960

Density Conversion Formula

$1 \text{ g/cm}^3 = 1000 \text{ kg/m}^3$
 $1 \text{ g/cm}^3 = 0.03613 \text{ lb/in}^3$
 $1 \text{ lb/in}^3 = 27.6799 \text{ g/cm}^3$
 $1 \text{ kg/m}^3 = 0.0003613 \text{ lb/in}^3$

Density note

Weights are nominal engineering reference values; actual mill tolerance and alloy density may vary.
 (Please see following pages for details)

Sources

CustomPartNet sheet metal gauge chart; MetalSupermarkets gauge chart; MetalTech gauge standards article.

Sheet Metal Gauge Chart

Gauge	Cold Rolled Steel / 冷板		lb/ft²	kg/m²	Galvanized Steel / 镀锌板		lb/ft²	kg/m²	Stainless Steel / 不锈钢		lb/ft²	kg/m²	Aluminum Sheet / 铝板		lb/ft²	kg/m²	Brass / 黄铜		lb/ft²	kg/m²	Copper / 红铜		lb/ft²	kg/m²
	inches (mm)				inches (mm)				inches (mm)				inches (mm)				inches (mm)				inches (mm)			
1									0.2813	7.1438	11.7422	57.3304	0.2893	7.3482	4.0743	19.8925	0.2893	7.3482	12.8256	62.6202	0.2893	7.3482	13.4766	65.7983
2									0.2656	6.7470	11.0901	54.1464	0.2576	6.5438	3.6283	17.7149	0.2576	6.5438	11.4216	55.7651	0.2576	6.5438	12.0013	58.5953
3	0.2391	6.0731	9.7633	47.6684					0.2500	6.3500	10.4375	50.9603	0.2294	5.8273	3.2310	15.7751	0.2294	5.8273	10.1710	49.6589	0.2294	5.8273	10.6871	52.1792
4	0.2242	5.6947	9.1548	44.6978					0.2344	5.9533	9.7854	47.7763	0.2043	5.1895	2.8774	14.0485	0.2043	5.1895	9.0577	44.2238	0.2043	5.1895	9.5174	46.4682
5	0.2092	5.3137	8.5423	41.7073					0.2188	5.5563	9.1328	44.5903	0.1819	4.6213	2.5623	12.5104	0.1819	4.6213	8.0660	39.3817	0.1819	4.6213	8.4754	41.3804
6	0.1943	4.9352	7.9339	38.7368					0.2031	5.1595	8.4807	41.4063	0.1620	4.1153	2.2818	11.1406	0.1620	4.1153	7.1829	35.0699	0.1620	4.1153	7.5474	36.8498
7	0.1793	4.5542	7.3214	35.7463					0.1875	4.7625	7.8281	38.2203	0.1443	3.6647	2.0319	9.9208	0.1443	3.6647	6.3964	31.2300	0.1443	3.6647	6.7210	32.8150
8	0.1644	4.1758	6.7130	32.7757	0.1681	4.2697	6.8641	33.5134	0.1719	4.3658	7.1760	35.0363	0.1285	3.2636	1.8096	8.8351	0.1285	3.2636	5.6964	27.8122	0.1285	3.2636	5.9855	29.2237
9	0.1495	3.7973	6.1046	29.8052	0.1532	3.8913	6.2557	30.5428	0.1563	3.9688	6.5234	31.8502	0.1144	2.9065	1.6116	7.8683	0.1144	2.9065	5.0731	24.7689	0.1144	2.9065	5.3305	26.0259
10	0.1345	3.4163	5.4921	26.8147	0.1382	3.5103	5.6432	27.5524	0.1406	3.5720	5.8713	28.6662	0.1019	2.5880	1.4350	7.0060	0.1019	2.5880	4.5171	22.0545	0.1019	2.5880	4.7464	23.1738
11	0.1196	3.0378	4.8837	23.8441	0.1233	3.1318	5.0348	24.5818	0.1250	3.1750	5.2188	25.4802	0.0907	2.3048	1.2779	6.2394	0.0907	2.3048	4.0228	19.6411	0.0907	2.3048	4.2270	20.6379
12	0.1046	2.6568	4.2712	20.8537	0.1084	2.7534	4.4263	21.6113	0.1094	2.7783	4.5666	22.2962	0.0808	2.0526	1.1381	5.5566	0.0808	2.0526	3.5826	17.4917	0.0808	2.0526	3.7644	18.3794
13	0.0897	2.2784	3.6628	17.8831	0.0934	2.3724	3.8138	18.6208	0.0938	2.3813	3.9141	19.1101	0.0720	1.8278	1.0134	4.9480	0.0720	1.8278	3.1902	15.5761	0.0720	1.8278	3.3521	16.3666
14	0.0747	1.8974	3.0503	14.8926	0.0785	1.9939	3.2054	15.6502	0.0781	1.9845	3.2619	15.9261	0.0641	1.6276	0.9025	4.4062	0.0641	1.6276	2.8409	13.8704	0.0641	1.6276	2.9851	14.5743
15	0.0673	1.7094	2.7481	13.4173	0.0710	1.8034	2.8992	14.1550	0.0703	1.7859	2.9354	14.3321	0.0571	1.4496	0.8037	3.9242	0.0571	1.4496	2.5301	12.3530	0.0571	1.4496	2.6585	12.9800
16	0.0598	1.5189	2.4418	11.9221	0.0635	1.6129	2.5929	12.6597	0.0625	1.5875	2.6094	12.7401	0.0508	1.2908	0.7157	3.4944	0.0508	1.2908	2.2530	11.0002	0.0508	1.2908	2.3674	11.5585
17	0.0538	1.3665	2.1968	10.7259	0.0575	1.4605	2.3479	11.4635	0.0563	1.4288	2.3484	11.4661	0.0453	1.1496	0.6374	3.1121	0.0453	1.1496	2.0065	9.7967	0.0453	1.1496	2.1084	10.2939
18	0.0478	1.2141	1.9518	9.5297	0.0516	1.3106	2.1070	10.2873	0.0500	1.2700	2.0875	10.1921	0.0403	1.0236	0.5676	2.7711	0.0403	1.0236	1.7866	8.7231	0.0403	1.0236	1.8773	9.1658
19	0.0418	1.0617	1.7068	8.3335	0.0456	1.1582	1.8620	9.0911	0.0438	1.1113	1.8266	8.9181	0.0359	0.9116	0.5055	2.4678	0.0359	0.9116	1.5911	7.7685	0.0359	0.9116	1.6719	8.1628
20	0.0359	0.9119	1.4659	7.1572	0.0396	1.0058	1.6170	7.8949	0.0375	0.9525	1.5656	7.6441	0.0320	0.8118	0.4501	2.1976	0.0320	0.8118	1.4169	6.9179	0.0320	0.8118	1.4888	7.2690
21	0.0329	0.8357	1.3434	6.5591	0.0366	0.9296	1.4945	7.2968	0.0344	0.8733	1.4354	7.0081	0.0285	0.7229	0.4008	1.9569	0.0285	0.7229	1.2617	6.1603	0.0285	0.7229	1.3258	6.4729
22	0.0299	0.7595	1.2209	5.9610	0.0336	0.8534	1.3720	6.6987	0.0313	0.7938	1.3047	6.3700	0.0254	0.6439	0.3570	1.7431	0.0254	0.6439	1.1239	5.4871	0.0254	0.6439	1.1809	5.7656
23	0.0269	0.6833	1.0984	5.3629	0.0306	0.7772	1.2495	6.1006	0.0281	0.7145	1.1744	5.7341	0.0226	0.5733	0.3179	1.5519	0.0226	0.5733	1.0006	4.8854	0.0226	0.5733	1.0514	5.1333
24	0.0239	0.6071	0.9759	4.7648	0.0276	0.7010	1.1270	5.5025	0.0250	0.6350	1.0438	5.0960	0.0201	0.5105	0.2831	1.3821	0.0201	0.5105	0.8911	4.3507	0.0201	0.5105	0.9363	4.5715
25	0.0209	0.5309	0.8534	4.1667	0.0247	0.6274	1.0086	4.9243	0.0219	0.5558	0.9135	4.4600	0.0179	0.4547	0.2521	1.2308	0.0179	0.4547	0.7936	3.8745	0.0179	0.4547	0.8338	4.0712
26	0.0179	0.4547	0.7309	3.5686	0.0217	0.5512	0.8861	4.3262	0.0188	0.4763	0.7828	3.8220	0.0159	0.4049	0.2245	1.0960	0.0159	0.4049	0.7067	3.4503	0.0159	0.4049	0.7425	3.6254
27	0.0164	0.4166	0.6697	3.2696	0.0202	0.5131	0.8248	4.0272	0.0172	0.4366	0.7177	3.5040	0.0142	0.3607	0.2000	0.9764	0.0142	0.3607	0.6295	3.0737	0.0142	0.3607	0.6615	3.2296
28	0.0149	0.3785	0.6084	2.9706	0.0187	0.4750	0.7636	3.7281	0.0156	0.3970	0.6526	3.1860	0.0126	0.3211	0.1780	0.8691	0.0126	0.3211	0.5604	2.7360	0.0126	0.3211	0.5888	2.8748
29	0.0135	0.3429	0.5513	2.6914	0.0172	0.4369	0.7023	3.4291	0.0141	0.3571	0.5870	2.8660	0.0113	0.2860	0.1586	0.7742	0.0113	0.2860	0.4992	2.4373	0.0113	0.2860	0.5245	2.5610
30	0.0120	0.3048	0.4900	2.3924	0.0157	0.3988	0.6411	3.1300	0.0125	0.3175	0.5219	2.5480	0.0100	0.2548	0.1413	0.6897	0.0100	0.2548	0.4447	2.1710	0.0100	0.2548	0.4672	2.2812

Common Metal Material Density Reference Table

Carbon Steel / Mild Steel Density

Material Grade	Standard	lb/in ³	g/cm ³	kg/m ³
SPCC	JIS G3141	0.2836	7.85	7850
SPCD	JIS G3141	0.2836	7.85	7850
SPCE	JIS G3141	0.2836	7.85	7850
Q235	GB/T700	0.284	7.86	7860
SGCC	JIS G3302	0.2836	7.85	7850
SECC	JIS G3313	0.2836	7.85	7850

Stainless Steel Density

Material Grade	Standard	lb/in ³	g/cm ³	kg/m ³
SUS201	JIS G4305	0.2865	7.93	7930
SUS301	JIS G4305	0.2865	7.93	7930
SUS304	JIS G4305	0.2865	7.93	7930
SUS316	JIS G4305	0.2883	7.98	7980
SUS430	JIS G4305	0.28	7.75	7750

Aluminum Density

Material Grade	Standard	lb/in ³	g/cm ³	kg/m ³
1050	ASTM B209	0.0979	2.71	2710
1060	ASTM B209	0.0975	2.7	2700
1070	ASTM B209	0.0975	2.7	2700
1100	ASTM B209	0.0979	2.71	2710
3003	ASTM B209	0.0986	2.73	2730
3004	ASTM B209	0.0982	2.72	2720
5052	ASTM B209	0.0968	2.68	2680
5083	ASTM B209	0.0961	2.66	2660
5754	ASTM B209	0.0972	2.69	2690
6061	ASTM B209	0.0975	2.7	2700
6063	ASTM B209	0.0972	2.69	2690
7075	ASTM B209	0.1015	2.81	2810

Brass Density

Material Grade	Standard	lb/in ³	g/cm ³	kg/m ³
C21000	ASTM B36	0.314	8.69	8690
C22000	ASTM B36	0.309	8.55	8550
C23000	ASTM B36	0.307	8.5	8500
C26000	ASTM B36	0.308	8.53	8530
C26800	ASTM B36	0.306	8.47	8470
H62	GB/T5231	0.307	8.5	8500
H65	GB/T5231	0.306	8.47	8470
H68	GB/T5231	0.305	8.45	8450

Copper Density

Material Grade	Standard	lb/in ³	g/cm ³	kg/m ³
C10100 OFE	ASTM B152	0.3236	8.96	8960
C10200 OF	ASTM B152	0.3232	8.95	8950
C11000 ETP	ASTM B152	0.3236	8.96	8960
T1	GB/T5231	0.3236	8.96	8960
T2	GB/T5231	0.3236	8.96	8960
C5191	JIS H3110	0.32	8.86	8860
C5210	JIS H3110	0.319	8.84	8840