Square bar and round bar weight chart

Square: kg/m = a² × 0.00785 · Round: kg/m = d² ÷ 162

Weight per metre of mild steel (MS) square bars and round bars, with the side a or the diameter d in mm. A 20 mm square bar weighs 3.140 kg/m and a 20 mm round bar 2.466 kg/m; a 6 m length of each is 18.84 kg and 14.80 kg.

Metric square and round bars

Size (mm)	Square kg/m	Square 6 m (kg)	Round kg/m	Round 6 m (kg)
6 mm	0.283	1.70	0.222	1.33
8 mm	0.502	3.01	0.395	2.37
10 mm	0.785	4.71	0.617	3.70
12 mm	1.130	6.78	0.888	5.33
14 mm	1.539	9.23	1.208	7.25
16 mm	2.010	12.06	1.578	9.47
18 mm	2.543	15.26	1.998	11.99
20 mm	3.140	18.84	2.466	14.80
22 mm	3.799	22.80	2.984	17.90
25 mm	4.906	29.44	3.853	23.12
28 mm	6.154	36.93	4.834	29.00
30 mm	7.065	42.39	5.549	33.29
32 mm	8.038	48.23	6.313	37.88
35 mm	9.616	57.70	7.553	45.32
36 mm	10.174	61.04	7.990	47.94
40 mm	12.560	75.36	9.865	59.19
45 mm	15.896	95.38	12.485	74.91
50 mm	19.625	117.75	15.413	92.48
55 mm	23.746	142.48	18.650	111.90
60 mm	28.260	169.56	22.195	133.17
65 mm	33.166	199.00	26.049	156.29
70 mm	38.465	230.79	30.210	181.26
75 mm	44.156	264.94	34.680	208.08
80 mm	50.240	301.44	39.458	236.75
90 mm	63.585	381.51	49.940	299.64
100 mm	78.500	471.00	61.654	369.92
110 mm	94.985	569.91	74.601	447.61

Size (mm)	Square kg/m	Square 6 m (kg)	Round kg/m	Round 6 m (kg)
120 mm	113.040	678.24	88.781	532.69
125 mm	122.656	735.94	96.334	578.00
150 mm	176.625	1,059.75	138.721	832.33

Inch square and round bars (lb/ft)

Size (in)	Square lb/ft	Square 12 ft (lb)	Round lb/ft	Round 12 ft (lb)
1/4"	0.213	2.6	0.167	2.0
5/16"	0.332	4.0	0.261	3.1
3/8"	0.479	5.7	0.376	4.5
7/16"	0.651	7.8	0.512	6.1
1/2"	0.851	10.2	0.668	8.0
9/16"	1.077	12.9	0.846	10.1
5/8"	1.329	16.0	1.044	12.5
3/4"	1.914	23.0	1.503	18.0
7/8"	2.606	31.3	2.046	24.6
1"	3.403	40.8	2.673	32.1
1-1/8"	4.307	51.7	3.383	40.6
1-1/4"	5.318	63.8	4.176	50.1
1-3/8"	6.434	77.2	5.053	60.6
1-1/2"	7.657	91.9	6.014	72.2
1-3/4"	10.422	125.1	8.186	98.2
2"	13.613	163.4	10.691	128.3
2-1/4"	17.229	206.7	13.531	162.4
2-1/2"	21.270	255.2	16.705	200.5
2-3/4"	25.737	308.8	20.214	242.6
3"	30.629	367.5	24.056	288.7
3-1/2"	41.689	500.3	32.743	392.9
4"	54.451	653.4	42.766	513.2

Theoretical weights at 7850 kg/m³ (490 lb/ft³), sharp corners. Multiply by 1.01 for stainless steel 304 and by 0.344 for aluminum. steelweight-calculator.com