MS Plate Weight Chart

Updated 8 November 2026 · Checked against IS 2062:2011, IS 1730

MS Plate Weight Chart

Standard mild steel plate weights by thickness (density 7.85 g/cm³). The right-hand columns show the weight of one full plate in the most common Indian sizes.

Thickness	Weight per m²	1250 × 2500 mm	8 × 4 ft (1220 × 2440 mm)	1500 × 6300 mm
1 mm	7.85 kg	24.53 kg	23.37 kg	74.18 kg
1.2 mm	9.42 kg	29.44 kg	28.04 kg	89.02 kg
1.6 mm	12.56 kg	39.25 kg	37.39 kg	118.69 kg
2 mm	15.70 kg	49.06 kg	46.74 kg	148.36 kg
2.5 mm	19.62 kg	61.33 kg	58.42 kg	185.46 kg
3 mm	23.55 kg	73.59 kg	70.10 kg	222.55 kg
4 mm	31.40 kg	98.12 kg	93.47 kg	296.73 kg
5 mm	39.25 kg	122.66 kg	116.84 kg	370.91 kg
6 mm	47.10 kg	147.19 kg	140.21 kg	445.09 kg
8 mm	62.80 kg	196.25 kg	186.94 kg	593.46 kg
10 mm	78.50 kg	245.31 kg	233.68 kg	741.82 kg
12 mm	94.20 kg	294.37 kg	280.41 kg	890.19 kg
16 mm	125.60 kg	392.50 kg	373.89 kg	1,186.92 kg
20 mm	157.00 kg	490.62 kg	467.36 kg	1,483.65 kg
25 mm	196.25 kg	613.28 kg	584.20 kg	1,854.56 kg
32 mm	251.20 kg	785.00 kg	747.77 kg	2,373.84 kg
40 mm	314.00 kg	981.25 kg	934.72 kg	2,967.30 kg
50 mm	392.50 kg	1,226.56 kg	1,168.39 kg	3,709.12 kg

Theoretical weights. Actual mill weight can differ slightly because of thickness tolerance.

Plate Weight Formula

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Weight (kg) = Length (m) × Width (m) × Thickness (mm) × 7.85
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The 7.85 is the density of steel. For other metals use their density instead: 7.93 for SS 304, 2.70 for aluminium, 8.96 for copper.

Example: an MS plate of 2500 × 1250 × 10 mm weighs 2.5 × 1.25 × 10 × 7.85 = **245.31 kg**.

For a round plate, use the area of a circle:

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Weight (kg) = 3.1416 × (D ÷ 2)² × Thickness (mm) × 7.85 (D in meters)
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For a ring, calculate the full disc and subtract the weight of the hole.

Why Actual Weight Can Differ

Steel is rolled to a size range, not an exact size, so the weight on the weighbridge is rarely exactly the calculated weight.

- **TMT bars (IS 1786):** the mass per meter may vary by about ±7% for bars up to 10 mm, ±5% for 12–16 mm and ±3% for bars above 16 mm.
- **Plates and sheets (IS 1852 / IS 2062):** thickness has a rolling tolerance, so a "10 mm" plate can be slightly thicker or thinner.
- **Pipes and sections:** corner radius, weld seam, zinc coating and end finish (plain or screwed) change the weight a little.

Use the calculated (nominal) weight for estimates and quotations, and the actual weighbridge weight for billing.

Sources & Standards

- IS 2062:2011 – Hot rolled structural steel
- IS 1730 – Dimensions for steel plates, sheets and strips
- Density of mild steel: 7,850 kg/m³ (7.85 g/cm³); SS 304: 7,930 kg/m³

Weights are theoretical. Found an error? Tell us and we will fix it.