GI Pipe Weight Chart

Updated 8 November 2026 · Checked against IS 1239 (Part 1)

GI Pipe Weight Chart (IS 1239, Medium & Heavy)

Nominal bore	OD (mm)	Medium t	Black kg/m	GI approx. kg/m	Heavy t	Black kg/m	GI approx. kg/m
15 NB (½")	21.3	2.6	1.20	1.25	3.2	1.43	1.47
20 NB (¾")	26.9	2.6	1.56	1.62	3.2	1.87	1.93
25 NB (1")	33.7	3.2	2.41	2.48	4.0	2.93	3.00
32 NB (1¼")	42.4	3.2	3.09	3.19	4.0	3.79	3.88
40 NB (1½")	48.3	3.2	3.56	3.67	4.0	4.37	4.48
50 NB (2")	60.3	3.6	5.03	5.18	4.5	6.19	6.33
65 NB (2½")	76.1	3.6	6.44	6.62	4.5	7.95	8.13
80 NB (3")	88.9	4.0	8.37	8.59	4.85	10.05	10.26
100 NB (4")	114.3	4.5	12.18	12.46	5.4	14.50	14.78

Black-pipe weights are calculated for plain ends. "GI approx." adds zinc of about 400 g/m² on the inside and outside surfaces; actual coating weight varies by mill. Screwed-and-socketed pipe is slightly heavier.

GI Pipe Weight Formula

```
Black weight (kg/m) = (OD − t) × t × 0.02466
```

Add the zinc: (π × OD + π × ID) ÷ 1000 × coating (kg/m²). For a 1 inch medium pipe: 2.41 + 0.08 ≈ **2.49 kg/m**.

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 1239 (Part 1) – Steel tubes: OD and wall thickness for light, medium and heavy class
- 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.