

Threaded Rod & Stud Bolt Weight Chart — M27

M27 · 14 lengths · kg per piece · kg/m · carbon steel 7.85 g/cm³ · rolled thread ×0.97

M27

4.4 kg/m · As 459 mm²

Length L (mm)	Weight per piece kg
M27×100	0.44
M27×150	0.65
M27×200	0.87
M27×250	1.1
M27×300	1.3
M27×400	1.7
M27×500	2.2
M27×600	2.6
M27×800	3.5
M27×1000	4.4
M27×1500	6.5
M27×2000	8.7
M27×2500	10.9
M27×3000	13.1

All values are computed as geometric volume × density (carbon steel 7.85 g/cm³, base metal, coating excluded) — no copyrighted standard tables are reproduced. Fully threaded rolled rod = plain cylinder $\pi/4 \cdot d^2 \cdot L \times 0.97$ (thread-rolling allowance, identical formula and parameters as the online weight calculator). The plain full-diameter figure is 4.495 kg/m; this chart uses 97% of it.

Pitch and minor diameter are public ISO metric basic-profile geometry; As is the ISO 898-1 tensile stress area used for tensile capacity calculations, not the physical cross-section.

Basis of Calculation & Disclosed Assumptions

Boundary: theoretical geometric estimates for quotation, freight and lifting budgets. Actual piece weight varies with thread tolerance and coating (hot-dip galvanizing ≈ +4.5%). Use measured values for trade settlement. Double-end studs are cut-to-length products — at the same diameter and length the piece weight matches threaded rod.

References

- GB/T 15389-1994 — Threaded rods (CN national standard, official full text) — https://openstd.samr.gov.cn/bzgk/gb/std?std_no=GB%2FT%2015389-1994
- GB/T 192-2003 — General purpose metric screw threads: basic profile (CN, official full text; ISO 68-1 equivalent) — https://openstd.samr.gov.cn/bzgk/gb/std?std_no=GB%2FT%20192-2003
- Metric thread basic profile (ISO 68-1)
- Dimensions cross-checked against industry fastener data libraries; densities are common industry values

Disclaimer: This chart is an engineering estimation for selection, quotation and freight estimation only. It does not constitute design or acceptance criteria.

Material Density Conversion

Values above are carbon steel (7.85 g/cm³); for other materials multiply by the density factor.

Material	Density (g/cm³) g/cm³	Factor
Carbon / Alloy Steel	7.85	×1.000
Stainless 304	7.93	×1.010
Stainless 316	7.98	×1.017
Brass	8.5	×1.083