

# Tungsten Carbide Density and Weight: RFQ Reference

Public planning reference for engineers and buyers estimating tungsten carbide rod and blank weight before sending an RFQ.

Planning use	Density	Approx. lb/in <sup>3</sup>	Quote note
Lower-density carbide estimate	13.5 g/cm <sup>3</sup>	0.488 lb/in <sup>3</sup>	Use only for rough planning unless the grade is known.
Common mid-range shop estimate	14.5 g/cm <sup>3</sup>	0.524 lb/in <sup>3</sup>	Useful for early blank, rod, and shipment estimates.
Higher-density carbide estimate	15.2 g/cm <sup>3</sup>	0.549 lb/in <sup>3</sup>	Use grade-specific density before quoting or production.

## Example weights at 14.5 g/cm<sup>3</sup>

Geometry	Volume	Approx. weight	Why it matters
0.500 in diameter x 6.000 in rod	1.178 in <sup>3</sup>	0.62 lb	Diameter drives weight quickly because radius is squared.
1.000 in diameter x 6.000 in rod	4.712 in <sup>3</sup>	2.47 lb	Doubling diameter creates roughly four times the weight.
2.000 x 1.000 x 0.500 in blank	1.000 in <sup>3</sup>	0.52 lb	Rectangular blanks are simpler: L x W x T x density.
4.000 x 2.000 x 1.000 in blank	8.000 in <sup>3</sup>	4.19 lb	Oversize stock can materially change quote and freight assumptions.

## RFQ checklist

Drawing or sketch; grade or application conditions; starting form; finished dimensions and tolerances; finish or grind allowance; quantity; inspection, certification, or traceability requirements.

Use the calculator: <https://extramet.net/tungsten-carbide-density-and-weight-calculator/> | Request a quote: <https://extramet.net/rfq/>