

Tungsten Carbide Grade Chart

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Grade	Density g/cm3	Hardness HRA	TRS MPa	Grain um	Composition	ISO
YL10.2	14.4-14.6	≥92.2	≥4000	0.6-0.8	10% Co / 90% WC	K30
YG6	14.85-15.05	≥90.0	≥2150	1.2-2.0	6% Co / 94% WC	K10
YG6X	14.85-15.0	≥92.0	≥1860	0.8-1.0	6% Co / 94% WC	K10
YG8	14.65-14.85	≥89.5	≥2320	1.2-2.0	8% Co / 92% WC	K20
YG10	14.5-14.6	≥85.5	≥2600	1.2-2.0	10% Co / 90% WC	K20
YG15	14.0-14.1	≥85.0	≥2800	1.2-2.0	15% Co / 85% WC	

Also produced: YG8X, YG12, YG15X, YN6, YN9. Request data with your enquiry.

Choosing a grade

- Cobalt content sets the balance between hardness and toughness. Less cobalt is harder and more brittle.
- Grain size matters as much as cobalt content. A fine grain lifts hardness and strength together.
- Transverse rupture strength predicts chipping. Hardness predicts abrasive wear.
- Uniform surface loss points at abrasion, so move to a lower cobalt grade.
- Edge chipping points at impact, so move to a higher cobalt grade.
- Send the worn part or a photograph of it and the grade can be read from the wear pattern.