



Properties



tungsten carbide

Sintering parameters	Hardmetal grade	91.0 WC/9Co
	Mill	Attritor
	Sintering	Vacuum/1450° C/1 hr
Sintering results	Typical specific gravity	14.62 g/cm ³
	Typical porosity (ISO 4505)	A02 B00 C00
	Typical hardness	1300 HV50/89.6 HRa
	Typical coercive force	9.0 kA. m ⁻¹ /115 Oe
	Typical magnetic saturation	17.2 $\mu\text{T.m}^3/\text{kg}$

	CW5622	Typical	Guaranteed
Physical analysis	Fisher size (as delivered) (μm)	3.5	3.1 - 3.9
	Scott density (g/cm ³)	4.2	3.7 - 4.7
Chemical analysis	Total carbon (%)	6.14	6.11 - 6.16
	Free carbon (%)	0.03	< 0.08
	Combined carbon (%)	6.11	> 6.05
	Oxygen (%)	0.025	< 0.1
	Al (ppm)	< 3	< 10
	Ca (ppm)	< 3	< 10
	Cr (ppm)	15	< 40
	Fe (ppm)	50	< 100
	K (ppm)	< 5	< 15
	Mg (ppm)	< 5	< 15
	Mo (ppm)	15	< 50
	Na (ppm)	< 5	< 15
	Ni (ppm)	10	< 25
	Si (ppm)	10	< 40

Particle size distribution

Laser diffraction

