

Tungsten carbide balls (hard metal)

property

exceptional hardness and resistance to wear

applications

special bearings, valves, ball pens, mining, etc.

diameter from 0,30 mm to 100 mm

grade G5 – G500

ISO 3290 / DIN 5401 / AFBMA

chemical composition and physical feature

chemical elements	material quality				
	TC2	TC3	TC4	TC15	TC B7
WC %	94	85,5	90	80	77
Co %	6	12	7,5		0,4
Ni %			5	3	3,5
Cr %		2,5	2	2,5	2
C %				7	6,5
Ti %				7,2	10
residue (Fe, Co, Ta, V)				0,3	
several residues %					0,6
hardness HV	1400-1500	1400-1500	1400-1600	1900-2100	>=2000
density g/cm ³	14,9	14,15	14,3	14,3	
magnetically	Yes	Yes	Yes	No	No
resistant to oil based ink	+		+	+	
resistant to water based ink	-		+	+	
resistant to gelbasis ink	-		-	+	