



Advanced Material & Metal Compounds

□ Tungsten Titanium Carbide

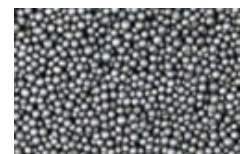
Tungsten Titanium Carbide, also called **Cubic Tungsten Carbide** (W, Ti)C, is a kind of intermediate powder material for the production of cemented carbides, which can improve carbide ceramic and metal's performance in cutting process, or used in thermal spraying, plasma spraying, hard film, conductive field of electronic industry.



No.	Item		Standard Specification			
			WC:TiC =70:30		WC:TiC =50:50	
1	(WTi)C Grade		Guarantee	Typical	Guarantee	Typical
2	W	PCT %	65.5	65.6	46.5	47.0
	Ti		24.3	23.86	40.0	40.1
	Total C		10.0±0.3	9.90	12.5±0.2	12.6
	Free C		≤0.5	0.17	≤0.5	0.21
	Com C		≥9.5	9.73	≥12.0	12.39
	O		≤0.25	0.13	≤0.35	0.15
3	N	PPM Max	≤0.4	0.10	≤0.80	0.29
	Ca		100	83.0	100	86.0
	Co		500	100	800	90.0
	Fe		500	320	500	310
	Mo		500	<150	500	<150
	K+Na		100	-	100	-
4	S	Particle size μm	200	<20	200	<20
	Si		50	<50	50	<50
5	Packing		In iron drum with plastic bag inside, 50kgs net each			

□ Tungsten Carbide Pellet

Tungsten Carbide Pellet, or cemented Carbide Pellet, dark grey powder, a made up of chemically bonded tungsten and carbon, is main material for production of cemented carbide. Its superior hardness enables it to replace steel and other metal alloys in a variety of applications for hard-surfacing and spraying wear parts in mining and oil drilling field, and for built-up welding to improve substantially the hardness, wear resistance and corrosion resistance of the surface of the machined parts.



No.	Item		Standard Specification		
			YQ1	YQ2	YQ3
1	Grade		YQ1	YQ2	YQ3
	WC %min		Balance	Balance	Balance
2	Co %		3.5-4.0	5.7-6.3	6.5-7.2
	Total Carbon %		5.5-5.9	5.4-5.8	5.4-5.8
3	Chemical		Free Carbon 0.1%, Ti 0.5%, Fe 0.5%, O 1.0%		
	Size		10-20 Mesh, 14-20 Mesh, 20-30 Mesh, 30-40 Mesh		
	Density g/cm ³		14.8-15.3	14.8-15.0	14.5-15.0
4	HV kg/mm ²		≥1400	≥1300	≥1300
	Porosity		A ₀₄ B ₀₄ C ₀₄	A ₀₄ B ₀₄ C ₀₂	A ₀₄ B ₀₄ C ₀₄
5	Microstructure		No de-carbonization and Cobalt pools		
6	Packing		In iron drum with inner plastic bag, 50kg net weight.		