



## ULTRA HIGH PURITY TUNGSTEN POWDER

### 5N Series

### Technical Data Sheet



High Purity Tungsten Powders produced at Buffalo Tungsten are typically greater than 99.999% in tungsten content. Impurity analyses are performed by EAG labs using GDMS method for accurate low level results.

**APPLICATIONS:** Semiconductors, Sputtering Targets, Thin Film Deposition

PHYSICAL PROPERTIES				NON-METALLIC IMPURITIES (WT%)	
Type	Average Particle Size FSSS (µm)	Apparent Density (g/in <sup>3</sup> )	Standard Screening (mesh size)	Carbon	Oxygen (LOR)
C10-5N	3.0-5.0	40-70	-200	≤0.003	≤0.030

METALLIC IMPURITIES (WT% parts per million)															
Element	Ag	Al	As	Au	B	Ba	Be	Bi	Br	Ca	Cd	Ce	Cl	Co	Cr
Typical	0.01	0.03	0.01	0.01	0.001	0.09	0.001	0.001	0.01	0.07	0.10	0.005	0.001	0.10	0.25
Max	0.01	0.05	0.01	0.01	0.001	0.20	0.001	0.005	0.01	0.10	0.10	0.005	0.002	0.25	0.90
Element	Cs	Cu	Dy	Er	Eu	F	Fe	Ga	Gd	Ge	Hf	Hg	Ho	I	In
Typical	0.01	0.03	0.005	0.005	0.005	0.05	0.50	0.01	0.005	0.01	0.01	0.10	0.005	0.01	0.01
Max	0.01	0.05	0.005	0.005	0.005	0.05	1.00	0.01	0.005	0.01	0.01	0.10	0.005	0.01	0.01
Element	Ir	K	La	Li	Lu	Mg	Mn	Mo	Na	Nb	Nd	Ni	Os	P	Pb
Typical	0.005	0.05	0.01	0.005	0.005	0.005	0.03	0.40	0.15	0.10	0.005	0.10	0.01	0.25	0.005
Max	0.005	0.10	0.01	0.07	0.005	0.010	0.05	1.00	0.20	0.13	0.005	0.30	0.01	0.35	0.005
Element	Pd	Pr	Pt	Rb	Re	Rh	Ru	S	Sb	Sc	Se	Si	Sm	Sn	Sr
Typical	0.01	0.005	0.01	0.005	0.05	0.005	0.005	0.01	0.01	0.001	0.01	0.03	0.005	0.01	0.005
Max	0.01	0.005	0.01	0.005	0.05	0.005	0.005	0.50	0.01	0.001	0.01	0.10	0.005	0.01	0.007
Element	Ta	Tb	Te	Th	Ti	Tl	Tm	U	V	Y	Yb	Zn	Zr		
Typical	2.00	0.005	0.01	0.0001	0.001	0.005	0.005	0.003	0.05	0.005	0.005	0.01	0.005		
Max	2.00	0.005	0.01	0.001	0.03	0.005	0.005	0.010	0.10	0.005	0.005	0.02	0.005		