

TECHNICAL DATA SHEET

TUNGSTEN CARBIDE POWDER TYPICAL PHYSICAL PROPERTIES

TYPE	WC1	WC2	WC3	WC4	WC5	WC6
FSSS SIZE, μM	0.5 – 0.99	1.00 – 1.69	1.7 – 5.99	6.0 – 8.99	9.0 – 15	>15
PRODUCTION SCREENED	-100	-100	-200	-200	-200	-200
CARBON TOTAL WT% ¹	6.10 – 6.16	6.10 – 6.16	6.10 – 6.16	6.10 – 6.16	6.10 – 6.16	6.10 – 6.16
CARBON COMBINED WT% ¹	≥ 6.07	≥ 6.07	≥ 6.07	≥ 6.07	≥ 6.07	≥ 6.07
AVAILABLE DOPANTS ²	VC, Cr ₃ C ₂ , NbC	VC, Cr ₃ C ₂ , NbC	VC, Cr ₃ C ₂			
AL WT%	≤ 0.004	≤ 0.003	≤ 0.003	≤ 0.003	≤ 0.003	≤ 0.005
CU WT%	≤ 0.003	≤ 0.003	≤ 0.003	≤ 0.003	≤ 0.003	≤ 0.003
CR WT% ³	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.0015	≤ 0.02	≤ 0.03
FE WT%	≤ 0.01	≤ 0.01	≤ 0.01	≤ 0.02	≤ 0.03	≤ 0.05
NI WT%	≤ 0.005	≤ 0.005	≤ 0.005	≤ 0.01	≤ 0.02	≤ 0.03
MO WT%	≤ 0.01	≤ 0.01	≤ 0.01	≤ 0.01	≤ 0.02	≤ 0.03
O2 WT%	≤ 0.28	≤ 0.18	≤ 0.18	≤ 0.01	≤ 0.08	≤ 0.08

¹Specified carbon levels may be requested by customer - excludes cr₃c₂ doped materials

²Dopant type and level may be specified by customer

³Excludes CR₃C₂ doped materials

Particle size distribution by sedigraph for powder with milled fsss <15 μm

Particle size distribution by malvern per request

Scott density reported for all materials

Use test at 10% cobalt addition available as requested

All powder is commercially uniform in purity. The chemical and physical analyses are determined for each production lot of powder by using commercially accepted methods.

The results of all relevant tests are reported to the customer on a Certificate of Analysis.

PACKAGING:

All material is packed in polyethylene bags inside the following containers:

Up to 50 kg per container

Up to 250 kg per container