HYDRO CARBIDE, INC.

Hydro Carbide's Quality Control Department establishes standards for all tungsten carbide grades we use in the production of all our components and parts manufactured for our customers.

We conduct control quality checks during each production operation. Chemical analysis and grain size are checked to assure that all products conform to standards. Test pieces are made to determine physical properties: hardness, transverse rupture strength and density. Fractured and polished surfaces are examined micro-graphically, and test results of each lot are recorded. Certifications of test results are available.

TUNGSTEN CARBIDE NOMINAL PROPERTIES

NOMINAL PROPERTIES							
GRADE	GRAIN STRUCTURE	Grain Size Range	COBALT %	HARDNESS Ra	DENSITY g/cc	TRS (avg) 1000 psi	HARDNESS HV30
HC UF12	Ultra Fine		12	92.5	14.2	625	1680
HC US06	sub-micron		6	93	14.85	350	1750
Ramet 1	sub-micron		10	92.2	14.45	450	1640
HC US10	sub-micron		10	92.2	14.45	450	1640
HC US15	sub-micron		14	90.5	14.1	475	1440
HC US16	sub-micron		16	90.8	13.85	550	1470
HC US20	sub-micron		10	92.4	14.44	400	1680
HC 200	Fine		3	93	15.23	275	1750
HC 290	Fine		6	91.8	14.95	340	1590
HC 292	Fine		6	92.2	15.02	350	1640
HC 400	Fine		9	91.3	14.62	365	1530
HC 410	Fine		11.5	90.5	14.37	400	1440
HC 500	Fine		13	90	14.22	410	1380
HC 600	Fine		15	89	14.02	425	1280
HC 291	medium		6	91.2	14.92	310	1520
HC510	medium		11.5	89.8	14.37	350	1360
HC 510M	medium		10	89.8	14.45	350	1360
HC 509	medium		12	89	14.32	425	1280
HC M112	medium		13	88.5	14.22	450	1230
HC M105	Coarse		10	88.2	14.52	400	1200
HC M155	Coarse		15.5	86.3	13.97	420	1030
HC 700	Coarse		20	85.7	13.58	440	1000
HC 800	Coarse		25	83.5	83.6	430	870