

Carbide Grades & Specifications

Carbide Grade		K60X	K50X	K40XF	DK007T (DK2457UF)	DK400N	DK120	DK460UF K40UF	DK500UF K44UF	DK255UF K20F	K88UF	DK256EH	DK502UF K48SF	DK120UF	K6UF	K55SF	K5UF	DK452UF	K4SF
ISO Classification				K30-K40		K20-K40	K15-K20	K30-K40	K20-K30	K20-K30	K10-K20	K20		K10	K05-K10	K05-K10	K05-10		
Co	%	12.0	11.0	10.0	12.0	10.0	6.0	10.0	12.0	8.0	10.0	8.0	12.0	7.0	6.0	9.0	5.0	9.0	4.4
WC incl. Doping	%	88.0	89.0	90.0	88.0	90.0	94.0	90.0	88.0	92.0	90.0	92.0	88.0	93.0	94.0	91.0	95.0	91.0	95.6
Density	g/cm ³			14.45		14.45	14.95	14.45	14.05	14.60	14.35	14.60		14.70	14.80	14.35	14.94		
Vickers Hardness HV30 ± 50	kg/mm ²	1450	1510	1560	1570	1580	1620	1620	1690	1720	1770	1790	1810	1850	1870	1920	2010	2060	2100
Rockwell Hardness HRA	ISO3738	90.8	91.3	91.7		92.1	92.1	92.1	92.6	92.7	93.0	93.0	93.1	93.0	93.6	93.7	94.0	94.2	94.3
Fracture Toughness K1C	MNm-3/2	15.0	12.0	11.5		10.6	9.9	10.5	10.4	9.5	9.8	9.6	9.5	9.6	9.3	9.3	9.3		8.8
Transverse Rupture Strength	N/mm ²		4100	3700		4100	3200	4100	4200	3800	4000	3700		3500	3900	3800	3600		
Porosity	A < 10 µm	< 02	< 02	< 02	< 02	< 02	< 02	< 02	< 02	< 02	< 02	< 02	< 02	< 02	< 02	< 02	< 02	< 02	< 02
	B < 25 µm	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
	C	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
WC grain size	µm	0.80	0.80	0.80	0.60	0.70	1.20	0.65	0.50	0.70	0.50	0.60	0.20	0.60	0.65	0.20	0.50	0.15	0.20

Fracture Toughness vs. Vickers Hardness

