

Saw Tips

Grade Specifications and Application Chart



Cemented Tungsten Carbide Grades for Saw Tips and Engineered Components

	Kennametal Grade Name	Legacy Name	Average WC Grain Size (µm)	Industry Classification	Binder (wt %)	Hardness			Density (g/cm ³)	TRS (1000 psi)	Common Applications			
						HRA	HV10*	HV30*			MDF/HDF	Primary/Trim	Edger	Extremely High Impact
Wood Cutting Grades	CNC68	—	Submicron	C4 K05	6.5%	93.4	1910	1880	14.0	310	●			
	KFS33	K313	Submicron	C3/C4 K10	6.0%	93.0	1820	1790	14.9	450	●			
	KFF06	K68	Fine	C3 K10	5.7%	92.7	1770	1740	15.0	290	●			
	KFF05	K6	Fine	C2 K20	5.5%	92.1	1640	1620	14.9	310	●	●		
	KFS64	S105	Submicron	C1/C2 K30	10.0%	91.8	1600	1580	14.4	625		●	●	
	KWH	—	Medium	C1/C2 K30	8.6%	90.3	1400	1380	14.0	276		●	●	
	KFM65	K1	Medium	C1 K40	11.5%	89.8	1340	1330	14.3	380			●	
	K3030C	—	Coarse	C11 K30	11.4%	88.5	1220	1210	14.4	400			●	
	KW115	—	Medium	C13 K40	15.0%	87.6	1130	1120	14.0	426			●	●
	K3520	—	Coarse	C14 K40	20.0%	84.1	850	840	13.6	360				●
Stellite™ Grades														
		Stellite 12	Metallurgy	Description			Hardness (HRC)	Density (g/cm ³)	Melting Range °F (°C)	MDF/HDF	Primary/Trim	Edger	Extremely High Impact	
	ST12PM	Cobalt Alloy	Stellite 12 is a weldable alloy composed of cobalt, chrome, and tungsten with high toughness and excellent corrosion resistance. It is commonly used in circular and band saws when cutting green, frozen, and kiln dried lumber.			48	8.28	2292–2446 (1255–1341)		●	●			

	Kennametal Grade Name	Legacy Name	Average WC Grain Size (µm)	Industry Classification	Binder (wt %)	Other Carbides TIC (Ta, Nb) C	Hardness			Density (g/cm ³)	TRS (1000 psi)	Common Applications		
							HRA	HV10*	HV30*			Non-Ferrous	Cast Iron	Steel
Metal Cutting Grades	KFS33	K313	Submicron	C3/C4 K15	6.0%	—	93.0	1820	1790	14.9	450	●	●	
	KFF24	H21 FK20M CA4 CQ2	Fine	C2 K20	6.0%	—	92.0	1630	1610	14.9	325		●	
	KPM07	T22 FP20M	Medium	C7 P10–P20	7.0%	11%	92.0	1630	1610	12.8	270			●
	KFS64	S105	Submicron	C1/C2 K30	10.0%	—	91.8	1600	1580	14.4	625		●	●
	KPM09	NTA FP20B	Medium	C6 P20–P35	8.5%	16%	91.4	1540	1520	12.2	275			●
	KPM55	T14 FP30M CA725X	Medium	C6 P25	10.0%	17%	91.3	1530	1510	12.3	300			●
	KPM56	T04 CA745	Medium	C5 P30–P45	11.0%	9%	90.3	1400	1380	13.1	350			●

*Conversions are for reference only.

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Quick Reference Key for Grade Nomenclature

Example: KFS64 = 10% cobalt binder with submicron grain structure

K	F	S	64
Brand	Binder/Primary Market	Grain Size	Binder Content
K = Kennametal	F = Cobalt/Tooling Blanks P = Cobalt + 4% or Greater Cubics/ Tooling Blanks Steel Cutting	N = < 0.2 µm Nano U = 0.2–0.5 µm Ultrafine S = 0.5–0.8 µm Submicron F = 0.8–1.3 µm Fine M = 1.3–2.5 µm Medium C = 2.5–6.0 µm Coarse E = > 6.0 µm Extra Coarse	XY = Sum of X + Y = Binder % (Up to 18 %) 06 = 6% 15 = 6% 67 = 13%

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