

Composition and choice of carbides

Color	Classification	Chemical composition (%)					USI-TECH Nuances	Performances	Application	Type of material
Blue	P01	30 ~ 78	7 ~ 13	10 ~ 40	0 ~ 25	4 ~ 8		↑ Faster cutting speed, better abrasion resistance, ↓ higher resilience, longer feed length.	Turning	Steel, cast steel
	P10	50 ~ 80	7 ~ 10	8 ~ 20	0 ~ 25	4 ~ 9	U-C U-CTIN		Turning, Milling	Steel, cast steel
	P20	60 ~ 83	7 ~ 9	5 ~ 15	0 ~ 15	5 ~ 10	U908 U-C U-CTIN		Tournage, fraissage	Steel, cast steel
	P30	70 ~ 884	6 ~ 8	2 ~ 10	0 ~ 10	7 ~ 15	U908 U-C U-CTIN		Turning, Milling, planing	Steel, cast steel, stainless steel
	P40	65 ~ 85	6 ~ 8	2 ~ 10	0 ~ 10	7 ~ 15	U35		Turning, Milling, planing	Steel, cast steel, stainless steel
	P50	60 ~ 83	5 ~ 7	2 ~ 8	0 ~ 8	9 ~ 20			Turning, Milling, planing	Steel, cast steel, stainless steel

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Yellow	M10	70 ~ 86	6 ~ 8	3 ~ 11	0 ~ 11	4 ~ 9		↑ Faster cutting speed, better abrasion resistance, ↓ Higher resilience, longer feed length	Turning	Steel, cast steel
	M20	70 ~ 86	5 ~ 8	2 ~ 10	0 ~ 11	5 ~ 11	T-908		Turning	Manganese steel
	M30	70 ~ 86	5 ~ 8	2 ~ 9	0 ~ 9	6 ~ 13	T-30		Turning, Milling	Heat-resistant steel (alloy)
	M40	65 ~ 85	5 ~ 7	1 ~ 7	0 ~ 7	8 ~ 20	T-908		Turning, Milling, Planing	High-speed steel, non-ferrous metal

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Red	K01	83 ~ 91	5 ~ 7	0 ~ 2	0 ~ 3	3 ~ 6		↑ Faster cutting speed, better abrasion resistance, ↓ Higher resilience, longer feed length.	Turning, milling	Cast iron, ceramic
	K10	84 ~ 90	5 ~ 6	0 ~ 1	0 ~ 2	4 ~ 7	U-AL		Turning	Tempered steel
	K20	83 ~ 89	5 ~ 6	0 ~ 1	0 ~ 2	5 ~ 8			Turning	Steel, light alloy
	K30	81 ~ 88	5 ~ 6	0 ~ 1	0 ~ 2	6 ~ 11			Turning, milling, drilling, stretching	Non-ferrous metal
	K40	79 ~ 87	5 ~ 6			7 ~ 16			Tournage, milling, planing	Low-hardness metal, wood