ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material No. (1)	ISCAR		
							v_c[m/min]	f_z[mm]	f_z start [mm]
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1	210÷300	0.005÷0.01xD	0.006xD
		>= 0.25 %C	Annealed	650	190	2	200÷250	0.005÷0.01xD	0.006xD
		< 0.55 %C	Quenched and tempered	850	250	3	160÷240	0.004÷0.009xD	0.005xD
		>= 0.55 %C	Annealed	750	220	4	160÷240	0.003÷0.008xD	0.004xD
			Quenched and tempered	1000	300	5	140÷200	0.004÷0.009xD	0.005xD
	Low alloy steel and cast steel (less than 5% of alloying elements)		Annealed	600	200	6	160÷240	0.003÷0.008xD	0.004xD
			Quenched and tempered	930	275	7	120÷200	0.003÷0.008xD	0.004xD
				1000	300	8	130÷200	0.003÷0.008xD	0.004xD
				1200	350	9	140÷200	0.003÷0.008xD	0.004xD
	High alloyed steel, cast steel, and tool steel		Annealed	680	200	10	130÷200	0.003÷0.008xD	0.004xD
			Quenched and tempered	1100	325	11	70÷130	0.002÷0.007xD	0.003xD
	Stainless steel and cast steel		Ferritic/ martensitic	680	200	12	80÷175	0.002÷0.007xD	0.003xD
			Martensitic	820	240	13	60÷165	0.002÷0.007xD	0.003xD
M	Stainless steel and cast steel		Austenitic	600	180	14	60÷110	0.002÷0.007xD	0.003xD
K	Grey cast iron (GG)		Ferritic/pearlitic		180	15	150÷275	0.005÷0.01xD	0.006xD
			Pearlitic		260	16	150÷265	0.005÷0.01xD	0.006xD
	Cast iron nodular (GGG)		Ferritic		160	17	150÷200	0.005÷0.01xD	0.006xD
			Pearlitic		250	18	90÷150	0.004÷0.009xD	0.005xD
	Malleable cast iron		Ferritic		130	19	150÷200	0.005÷0.01xD	0.006xD
			Pearlitic		230	20	90÷150	0.004÷0.009xD	0.005xD
N	Aluminum wrought alloys		Not cureable		60	21			
			Cured		100	22			
	Aluminum cast alloys	<=12% Si	Not cureable		75	23			
			Cured		90	24			
		>12% Si	High temperature		130	25			
	Copper alloys	>1% Pb	Free cutting		110	26			
			Brass		90	27			
			Electrolytic copper		100	28			
	Non metallic		Duroplastics, fiber plastics			29			
			Hard rubber			30			
S	High temp. alloys	Fe based	Annealed		200	31	20÷45	0.002÷0.004xD	0.003xD
			Cured		280	32	20÷35	0.002÷0.004xD	0.003xD
		Ni or Co based	Annealed		250	33	20÷35	0.002÷0.004xD	0.003xD
			Cured		350	34	20÷35	0.002÷0.004xD	0.003xD
			Cast		320	35	60÷90	0.002÷0.004xD	0.003xD
	Titanium alloys		Pure	Rm = 400		36	60÷90	0.002÷0.004xD	0.003xD
			Alpha+beta alloys cured	Rm = 1050		37	60÷90	0.002÷0.004xD	0.003xD
H	Hardened steel		Hardened		55 HRC	38	40÷80	0.001÷0.003xD	0.002xD
			Hardened		60 HRC	39			
	Chilled cast iron		Cast		400	40	40÷80	0.001÷0.003xD	0.002xD
	Cast iron		Hardened		55 HRC	41	40÷80	0.001÷0.003xD	0.002xD