WCMX 040208 NN LT 30

Material Group		Gr. N°	VDI Group	Material Examples*	Hardness	Feed [mm/rev]		V_c [m/min]		Optimal cutting conditions	
						min	max	min	max	Feed	V_c
Steel	Non-alloyed	1	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.05	0.10	180	270	0.08	225
			2		190 HB		0.10		230	0.05	115
			3		250 HB		0.10		200	0.05	100
	Low alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.05	0.10	120	230	0.08	175
			4,6		230 HB		0.10	120	190	0.05	155
			5,7		280 HB		0.10	100	170	0.05	135
			8		350 HB		0.10	100	150	0.05	125
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.07	0.10	70	170	0.09	120
			10		280 HB		0.10	70	150	0.05	110
			11		320 HB		0.09	60	130	0.04	95
			11		350 HB		0.09	60	100	0.04	80
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.05	0.10	170	230	0.07	200
			14		240 HB	0.07	0.10	120	210	0.08	165
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.07	0.09	70	120	0.08	95
			14		310 HB		0.09		120	0.04	60
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.07	0.09	100	150	0.08	125
			13		42 HRc	0.05	0.08	60	100	0.07	80
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.10	0.11	150	230	0.11	190
			15		200 HB		0.11		210	0.06	105
			16		250 HB		0.11		170	0.06	85
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.10	0.11	120	200	0.11	160
			17,19		200 HB		0.11		170	0.06	85
			18,20		250 HB		0.11		150	0.06	75
High Temp.Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.05	0.08	25	35	0.07	30
			33	Inconel 700	250 HB		0.08	25	35	0.04	30
			34	Stellite 21	350 HB		0.08	23	35	0.04	29
	Ti based	10	36	TiAl6V4	-	0.05	0.08	35	60	0.07	45
			37	T40	-		0.08	28	40	0.04	34
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.05	0.08	50	90	0.07	70
			38		50 HRc		0.08	40	70	0.04	55
			38		55 HRc		0.08	30	60	0.04	45
	Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.05	0.08	40	60	0.07	50
	White Cast Iron		41	G-X300CrMo15	55 HRc	0.05	0.08	30	50	0.07	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.05	0.10	200	400	0.08	300

SAPPHIRE
CUTTING TOOLS