

TCMT 110208 NN LT 10 & LT 1000

Material Group		Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/rev]		Amax [mm²]	V _c [m/min]		Optimal cutting conditions	
						min	max	min	max		min	max	D.O.C.	Feed
Steel	Non-alloyed	1	1	C35, Ck45, 1020,	125 HB	0.2	2.1	0.08	0.20	0.37	180	330	1.0	0.25
			2	1045, 1060,	190 HB		1.8		0.19	0.32		280		
			3	28Mn6	250 HB		1.8		0.17	0.30		250		
	Low alloyed	2	6	42CrMo4, St50,	180 HB	0.2	1.8	0.08	0.17	0.31	120	280	1.0	0.21
			4,6	Ck60, 4140, 4340,	230 HB		1.8		0.17	0.30		250		
			5,7	100Cr6	280 HB		1.4		0.15	0.25		210		
			8		350 HB		1.4		0.15	0.22		180		
	High alloyed	3	10	X40CrMoV5,	220 HB	0.2	1.8	0.07	0.15	0.25	70	190	1.0	0.17
			10	H13, M42, D3,	280 HB		1.8		0.14	0.25		150		
			11	S6-5-2, 12Ni19	320 HB		1.4		0.12	0.20		130		
			11		350 HB		1.4		0.12	0.16		110		
Stainless Steel	Austenitic	4	14	304, 316,	180 HB	0.2	1.8	0.08	0.15	0.20	170	270	1.0	0.17
			14	X5CrNi18-9	240 HB		1.8		0.15	0.16	160	220		
	Duplex	5	14	X2CrNiN23-4,	290 HB	0.2	1.4	0.07	0.12	0.12	80	150	1.0	0.17
			14	S31500	310 HB		1.4		0.12		70	140		
	Ferritic & Martensitic	6	12	410, X6Cr17,	200 HB	0.2	1.8	0.08	0.15	0.20	170	250	1.0	0.21
			13	17-4 PH, 430	42 HRC		1.4		0.14	0.16	120	190		
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.2	2.1	0.06	0.17	0.40	170	250	1.0	0.25
			15	EN-GJL-250,	200 HB		2.1		0.17	0.37	160	230		
			16	No30B	250 HB		2.1		0.17	0.37	150	210		
	Malleable & Nodular	8	17,19	GGG40, GGG70,	150 HB	0.2	1.8	0.06	0.15	0.30		250	1.0	0.21
			17,19	50005	200 HB		1.8		0.15	0.25	120	230		
			18,20		250 HB		1.8		0.15	0.25		190		
High Temp. Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.2	1.4	0.08	0.13		25	50	1.0	0.17
			33	Inconel 700	250 HB		1.4		0.13	0.16	25	50		
			34	Stellite 21	350 HB		1.4		0.13		23	45		
	Ti based	10	36	TiAl6V4	-	0.2	1.4	0.08	0.14	0.20	45	65	1.0	0.20
			37	T40	-		1.4		0.12	0.16	35	60		
Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRC	0.2	1.3	0.04	0.10	0.12	50	100	0.8	0.15
			38	440C,	50 HRC		1.1		0.09	0.11	40	90	0.6	0.13
			38	G-X260NiCr42	55 HRC		1.0		0.08	0.08	40	80	0.5	0.10
	Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.2	1.1	0.04	0.10	0.11	40	60	0.6	0.15
	White Cast Iron		41	G-X300CrMo15	55 HRC	0.2	1.0	0.04	0.08	0.08	30	50	0.5	0.10
WF	Al (>8%Si)	12	25	AlSi12	130 HB	0.2	2.8	0.08	0.26	0.43	200	400	1.0	0.28