

TNMG 160408 NN/NX LT 10 & LT 1000

Material Group	Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/rev]		Amax [mm ²]	V _c [m/min]		Optimal cutting conditions			
					min	max	min	max		min	max	D.O.C.	Feed	V _c	
Steel	Non-alloyed	1	1	C35, Ck45, 1020,	125 HB	0.5	5.0	0.21	0.50	1.80	180	330	3.0	0.35	240
		2	1045, 1060,	190 HB	220										
		3	28Mn6	250 HB	200										
	Low alloyed	2	6	42CrMo4, Si50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	5.0	0.21	0.45	1.20	120	280	3.0	0.32	200
		4,6	230 HB		180										
		5,7	280 HB		150										
		8	350 HB		130										
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	4.0	0.18	0.40	1.20	70	190	2.5	0.30	140
		10	280 HB		120										
		11	320 HB		100										
		11	350 HB		90										
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.5	5.0	0.20	0.40	1.20	170	270	3.0	0.35	190
		14	240 HB	170											
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.5	4.0	0.18	0.35	0.80	80	150	2.5	0.28	100
		14	310 HB		90										
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	5.0	0.22	0.40	1.00	170	250	3.0	0.32	190
		13	42 HRC		120										190
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.5	5.0	0.15	0.60	2.00	170	250	3.0	0.35	200
		16	EN-GJL-250, No30B	200 HB	180										
		16	250 HB	160											
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	5.0	0.15	0.50	1.50	120	250	3.0	0.30	180
		17,19	200 HB		160										
18,20	250 HB	140													
High Temp Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.5	3.0	0.20	0.35	0.70	25	45	2.0	0.28	32
		33	Inconel 700	250 HB	30										
		34	Stellite 21	350 HB	28										
	Ti based	10	36	TiAl6V4	-	0.5	4.0	0.20	0.40	0.80	45	65	2.0	0.33	55
		37	T40		-										35
Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRC	0.5	2.5	0.11	0.30	0.60	50	100	2.0	0.25	80
		38	440C,	50 HRC	70										
		38	G-X260NiCr42	55 HRC	1.5										0.20
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.0	0.11	0.25	0.40	40	60	1.5	0.18	50	
		41	G-X300CrMo15	55 HRC	0.5	1.5	0.11	0.20	0.30	30	50	1.0	0.15	40	
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	6.0	0.20	0.60	1.80	200	400	3.0	0.40	280

