

CNMG 120408 NN 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	2.00	180	330	3.0	0.38	240							
		2	1045, 1060,	190 HB	5.0											0.50	1.80	280	0.35	220		
		3	28Mn6	250 HB	5.0											0.45	1.50	250	0.33	200		
	Low alloyed	2	6	42CrMo4, Si50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	5.0	0.21	0.45	1.60	120	280	3.0	0.32	200							
		4,6	230 HB		4.0											0.21	0.45	1.40	250	0.32	180	
		5,7	280 HB		4.0											0.18	0.40	1.20	210	0.30	150	
		8	350 HB		3.5											0.18	0.40	1.00	180	0.30	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		4.0											0.40	1.20	150	0.30	120		
		11	320 HB		3.0											0.35	0.80	130	0.28	100		
		11	350 HB		3.0											0.35	0.80	110	0.28	90		
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.5	5.0	0.20	0.40	1.00	170	270	3.0	0.25	190							
		14	240 HB	5.0	0.40											0.90	160	220	0.22	170		
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.5	4.0	0.18	0.35	0.70	80	150	2.5	0.28	100							
		14	310 HB	4.0	0.35											0.70	70	140	0.28	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		4.0											0.40	1.00	120	190	2.5	130	
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	5.0											0.60	1.80	160	230	180		
		16	250 HB	5.0	0.55											1.80	150	210	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		5.0											0.50	1.30	230	160			
18,20	250 HB	5.0	0.50		1.20											190	140	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	50	2.0	0.28	32							
		33	Inconel 700	250 HB	3.0											0.35	0.70	25	50	30		
		34	Stellite 21	350 HB	3.0											0.35	0.70	23	45	28		
	Ti based	10	36	TiAl6V4	-	0.5	3.5	0.20	0.40	0.80	45	65	2.0	0.33	55							
		37	T40	-	3.0											0.35	0.70	35	60	45		
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	2.0											0.25	0.50	40	90	1.5	0.20	70
		38	G-X260NiCr42	55 HRc	1.6											0.20	0.30	40	80	1.0	0.18	60
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.0	0.11	0.25	0.50	40	60	1.5	0.18	50								
		41	G-X300CrMo15	55 HRc	0.5	1.6	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	2.00	200	400	3.0	0.40	280							