

WNMG 080408 NX 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	V _c							
Steel	Non-alloyed	1	1	C35, Ck45, 1020,	125 HB	0.5	3.5	0.21	0.50	1.80	180	330	2.4	0.35	240						
		2	1045, 1060,	190 HB	3.5										0.50	1.80	280	220			
		3	28Mn6	250 HB	3.5										0.45	1.50	250	200			
	Low alloyed	2	6	42CrMo4, Si50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	3.5	0.21	0.45	1.20	120	280	2.4	0.32	200						
		4,6	230 HB		2.8										0.21	0.45	1.20	250	180		
		5,7	280 HB		2.8										0.18	0.40	1.20	210	150		
		8	350 HB		2.5										0.18	0.40	1.00	180	130		
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	2.8	0.18	0.40	1.20	70	190	2.0	0.30	140						
		10	280 HB		2.8										0.40	1.20	150	120			
		11	320 HB		2.1										0.35	0.80	130	100			
		11	350 HB		2.1										0.35	0.80	110	90			
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.5	3.5	0.20	0.40	1.00	170	270	2.4	0.25	190						
		14		240 HB	3.5										0.40	1.00	160	220	170		
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.5	2.8	0.18	0.35	0.80	80	150	2.0	0.28	100						
		14			310 HB										2.8	0.35	0.80	70	140	90	
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	3.5	0.22	0.40	1.00	170	250	2.4	0.32	190						
		13			42 HRc										2.8	0.40	1.00	120	190	130	
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	3.5	0.15	0.60	2.00	170	250	2.4	0.35	200						
		16		200 HB	3.5										0.60	1.80	160	230	180		
		16		250 HB	3.5										0.55	1.80	150	210	160		
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	3.5	0.15	0.50	1.50	120	250	2.4	0.30	180						
		17,19			200 HB										3.5	0.50	1.30	230	160		
		18,20			250 HB										3.5	0.50	1.20	190	140		
High Temp Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	0.5	2.1	0.20	0.35	0.70	25	45	1.6	0.28	32							
		33		Inconel 700										250 HB	2.1	0.35	0.70	25	45	30	
		34		Stellite 21										350 HB	2.1	0.35	0.70	23	40	28	
	Ti based	10	36	TiAl6V4	-	0.5	2.8	0.20	0.40	0.80	45	65	1.6	0.33	55						
		37			T40										-	2.1	0.35	0.70	35	55	45
	Hardened Mat.	Steel	11	38	X100CrMo13, 440C,	45 HRc	0.5	1.5	0.11	0.25	0.40	40	90	1.2	0.20	70					
38			50 HRc		1.5	0.20										0.30	40	80	0.8	0.18	60
38			G-X260NiCr42		55 HRc	1.5										0.20	0.30	40	80	0.8	0.18
Chilled Cast Iron White Cast Iron		40	41	Ni-Hard 2 G-X300CrMo15	400 HB	0.5	1.5	0.11	0.25	0.40	40	60	1.2	0.18	50						
		40			55 HRc										1.5	0.20	0.30	30	50	0.8	0.15
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	4.2	0.20	0.60	1.80	200	400	2.4	0.40	280						