

## WNMG 080408 NM LT 10 &amp; LT 1000

Material Group	Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/rev]		Amax [mm²]	V <sub>c</sub> [m/min]		Optimal cutting conditions									
					min	max	min	max		min	max	D.O.C.	Feed	V <sub>c</sub>							
Steel	Non-alloyed	1	1	C35, Ck45, 1020,	125 HB	0.5	3.5	0.25	0.65	2.16	180	330	3.0	0.44	240						
		2	1045, 1060,	190 HB	3.5										0.65	2.16	280	220			
		3	28Mn6	250 HB	3.5										0.59	1.80	250	200			
	Low alloyed	2	6	42CrMo4, Si50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	3.5	0.25	0.59	1.44	120	280	3.0	0.40	200						
			4,6		230 HB										2.8	0.59	1.44	250	180		
			5,7		280 HB										2.8	0.22	0.52	1.44	210	150	
			8		350 HB										2.5	0.22	0.52	1.20	180	130	
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	2.8	0.22	0.52	1.44	70	190	2.5	0.38	140						
			10		280 HB										2.8	0.52	1.44	150	120		
			11		320 HB										2.1	0.46	0.96	130	100		
			11		350 HB										2.1	0.46	0.96	110	90		
Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	3.5	0.26	0.52	1.20	170	250	3.0	0.40	190							
		13		42 HRc										2.8	0.52	1.20	190	130			
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	3.5	0.18	0.78	2.40	170	250	3.0	0.44	200							
				200 HB										0.78	2.16	160	230	180			
				250 HB										0.72	2.16	150	210	160			
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	3.5	0.18	0.65	1.80	120	250	3.0	0.38	180							
				200 HB										0.65	1.56	230	160				
				250 HB										0.65	1.44	190	140				
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	1.8	0.13	0.39	0.72	50	100	2.0	0.31	80							
				50 HRc										1.5	0.33	0.48	40	90	1.5	0.25	70
				55 HRc										1.5	0.26	0.36	40	80	1.0	0.23	60
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	1.5	0.13	0.33	0.48	40	60	1.5	0.23	50							
White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	1.5	0.13	0.26	0.36	30	50	1.0	0.19	40								