

ODMW 060508 TN LT 30

Material Group	Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/tooth]		V _c [m/min]		Optimal cutting conditions		
					min	max	min	max	min	max	D.O.C.	Feed	V _c
Steel	Non-alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	4.0	0.22	0.58	190	330	3.0	0.41	250
		190 HB		4.0		0.58		300		220			
		250 HB		4.0		0.58		250		200			
	Low alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	4.0	0.18	0.45	150	240	3.0	0.36	200
		230 HB		4.0		0.45		150		180			
		280 HB		4.0		0.40		130		150			150
		350 HB		4.0		0.40		130		170			140
	High alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	2.9	0.14	0.40	90	150	2.3	0.32	130
		280 HB		2.9		0.40		90		130			120
		320 HB		2.9		0.32		60		110			100
		350 HB		2.9		0.32		60		90			80
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	4.0	0.22	0.58	150	240	3.0	0.41	200
		200 HB		4.0		0.58		220		180			
		250 HB		4.0		0.58		190		160			
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	4.0	0.18	0.50	100	200	3.0	0.36	180
		200 HB		4.0		0.50		180		150			
		250 HB		4.0		0.50		150		130			
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.4	1.4	0.12	0.32	40	80	1.5	0.25	60
		50 HRc		0.9		0.29		70		55			
		55 HRc		0.4		0.25		60		50			
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.4	1.1	0.12	0.32	40	80	1.1	0.25	50
	White Cast Iron	41	G-X300CrMo15	55 HRc	0.4	0.4	0.12	0.25	30	60	0.8	0.22	40