

ODMT 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	1 C35, Ck45, 1020,	125 HB	0.5	4.0	0.22	0.54	190	330	2.5	0.39	250
		2	1045, 1060,	190 HB		4.0		0.54		300			220
		3	28Mn6	250 HB		4.0		0.54		250			200
	Low alloyed	2	6 42CrMo4, St50,	180 HB	0.5	4.0	0.18	0.43	150	240	2.5	0.34	200
		4,6	Ck60, 4140, 4340,	230 HB		4.0		0.43		210			180
		5,7	100Cr6	280 HB		4.0		0.37		190			150
		8		350 HB		4.0		0.37		170			140
	High alloyed	3	10 X40CrMoV5,	220 HB	0.5	2.9	0.14	0.37	90	150	1.9	0.31	130
		10	H13, M42, D3,	280 HB		2.9		0.37		130			120
		11	S6-5-2, 12Ni19	320 HB		2.9		0.31		110			100
		11		350 HB		2.9		0.31		90			80
Stainless Steel	Austenitic	4	14 304, 316,	180 HB	0.5	4.0	0.18	0.37	190	250	2.5	0.31	220
		14	X5CrNi18-9	240 HB		4.0		0.34		210			190
	Duplex	5	14 X2CrNiN23-4,	290 HB	0.5	2.9	0.14	0.31	70	130	1.9	0.27	100
		14	S31500	310 HB		2.9		0.31		120			90
	Ferritic & Martensitic	6	12 410, X6Cr17,	200 HB	0.5	4.0	0.18	0.37	150	210	2.5	0.31	190
		13	17-4 PH, 430	42 HRC		2.9		0.34		150			130
Cast Iron	Grey	7	15 GG20, GG40,	150 HB	0.5	4.0	0.22	0.54	150	240	2.5	0.39	200
		15	EN-GJL-250,	200 HB		4.0		0.54		220			180
		16	No30B	250 HB		4.0		0.54		190			160
	Malleable & Nodular	8	17,19 GGG40, GGG70,	150 HB	0.5	4.0	0.18	0.48	100	200	2.5	0.34	180
		17,19	50005	200 HB		4.0		0.48		180			150
		18,20		250 HB		4.0		0.48		150			130
High Temp. Alloys	Fe, Ni & Co based	9	31,32 Incoloy 800	240 HB	0.5	2.9	0.14	0.31	25	45	1.9	0.27	32
		33	Inconel 700	250 HB		2.9		0.31		45			30
		34	Stellite 21	350 HB		2.9		0.31		45			30
	Ti based	10	36 TiAl6V4	-	0.5	2.9	0.14	0.34	40	65	1.9	0.31	55
Hardened Mat.			37 T40	-		2.9		0.31		55			40
	Steel	11	38 X100CrMo13,	45 HRC	0.4	1.4	0.12	0.31	40	80	1.3	0.24	60
		38	440C,	50 HRC		0.9		0.27		70			55
		38	G-X260NiCr42	55 HRC		0.4		0.24		60			50
	Chilled Cast Iron		40 Ni-Hard 2	400 HB	0.4	1.1	0.12	0.31	40	80	0.9	0.24	50
	White Cast Iron		41 G-X300CrMo15	55 HRC	0.4	0.4	0.12	0.24	30	60	0.6	0.20	40
NF	Al (>8%Si)	12	25 AlSi12	130 HB	0.5	4.0	0.22	0.54	200	400	2.5	0.43	280