

LDMT 1504 PDTR 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	14.0	0.18	0.32	190	330	4.0	0.23	250					
		2	2	1045, 1060,	190 HB									220					
		3	3	28Mn6	250 HB									200					
	Low alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	14.0	0.15	0.25	150	240	4.0	0.20	200					
			4,6		230 HB									180					
			5,7		280 HB									150					
			8		350 HB									140					
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	10.0	0.12	0.22	90	150	3.0	0.18	130					
			10		280 HB									120					
			11		320 HB									100					
			11		350 HB									80					
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	14.0	0.15	0.25	190	250	4.0	0.20	220						
		14		240 HB									190						
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	10.0	0.12	0.18	70	130	3.0	0.16	100						
		14		310 HB									90						
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	14.0	0.15	0.25	150	210	4.0	0.20	190						
				13									42 HRC	130					
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	14.0	0.18	0.32	150	240	4.0	0.23	200						
				200 HB									180						
				250 HB									160						
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	14.0	0.15	0.28	100	180	4.0	0.20	180						
				200 HB									150						
				250 HB									130						
High Temp. Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.5	10.0	0.12	0.18	25	45	3.0	0.16	32					
			33	Inconel 700	250 HB									45					
			34	Stellite 21	350 HB									45					
	Ti based	10	TiAl6V4	-	0.5	10.0	0.12	0.20	40	65	3.0	0.18	55						
				37									T40	-	10.0	0.18	30	55	0.16
Hardened Mat.	Steel	11	38	X100CrMo13, 440C,	45 HRC	0.5	5.0	0.10	0.18	40	80	2.0	0.14	60					
			38	G-X260NiCr42	50 HRC									3.0	0.16	70	1.5	0.13	55
			38		55 HRC									1.5	0.14	60	1.0	0.12	50
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	4.0	0.10	0.18	40	80	1.5	0.14	50						
	White Cast Iron	41	G-X300CrMo15	55 HRC	0.5	1.5	0.10	0.14	30	60	1.0	0.12	40						
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	14.0	0.18	0.32	200	400	4.0	0.25	280					