

APKT 100332 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	C35, Ck45, 1020,	125 HB	0.5	9.0	0.13	0.28	190	330	1.0	0.29	250
			1045, 1060,	190 HB		9.0		0.28		300			220
			28Mn6	250 HB		9.0		0.28		250			200
	Low alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.11	0.22	150	240	1.0	0.25	200
				230 HB		9.0		0.22	150	210			180
				280 HB		9.0		0.19	130	190			150
				350 HB		9.0		0.19	130	170			140
	High alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	6.4	0.08	0.19	90	150	1.0	0.22	130
				280 HB		6.4		0.19	90	130			120
				320 HB		6.4		0.16	60	110			100
				350 HB		6.4		0.16	60	90			80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.11	0.22	190	250	1.0	0.25	220
				240 HB		9.0	0.08	0.19	160	210			190
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	6.4	0.08	0.16	70	130	1.0	0.20	100
				310 HB		6.4		0.16	70	120			90
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.11	0.22	150	210	1.0	0.25	190
				42 HRC		6.4		0.18	90	150			130
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.13	0.28	150	240	1.0	0.29	200
				200 HB		9.0		0.28		220			180
				250 HB		9.0		0.28		190			160
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.11	0.25	100	200	1.0	0.25	180
				200 HB		9.0		0.25		180			150
				250 HB		9.0		0.25		150			130
High Temp. Alloys	Fe, Ni & Co based	9	31,32 Incoloy 800	240 HB	0.5	6.4	0.08	0.16	25	45	1.0	0.20	32
			33 Inconel 700	250 HB		6.4		0.16		45			30
			34 Stellite 21	350 HB		6.4		0.16		45			30
	Ti based	10	36 TiAl6V4	-	0.5	6.4	0.08	0.18	40	65	1.0	0.22	55
Hardened Mat.	Steel	11	X100CrMo13, 440C,	45 HRC		3.2	0.07	0.16	40	80	0.7	0.17	60
			G-X260NiCr42	50 HRC	0.4	1.9		0.14		70			55
				55 HRC		1.0		0.12		60			50
	Chilled Cast Iron		40 Ni-Hard 2	400 HB	0.4	2.6	0.07	0.16	40	80	0.7	0.17	50
	White Cast Iron		41 G-X300CrMo15	55 HRC	0.4	1.0	0.07	0.12	30	60	0.7	0.15	40
NF	Al (>8%Si)	12	25 AlSi12	130 HB	0.5	9.0	0.13	0.28	200	400	1.0	0.31	280