

APKT 100340 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	9.0	0.13	0.46	190	330	1.0	0.35	250	
			2	1045, 1060, 28Mn6	190 HB		9.0		0.46		300			220	
			3		250 HB		9.0		0.46		250			200	
	Low alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.11	0.36	150	240	1.0	0.30	200	
			4,6		230 HB		9.0		0.36	150	210			180	
			5,7		280 HB		9.0		0.32	130	190			150	
			8		350 HB		9.0		0.32	130	170			140	
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	6.4	0.08	0.32	90	150	1.0	0.27	130	
			10		280 HB		6.4		0.32	90	130			120	
			11		320 HB		6.4		0.26	60	110			100	
			11		350 HB		6.4		0.26	60	90			80	
	Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.11	0.36	190	250	1.0	0.30	220
14					240 HB	9.0		0.08	0.32	160	210	190			
Duplex		5	14	X2CrNiN23-4, S31500	290 HB	0.5	6.4	0.08	0.26	70	130	1.0	0.24	100	
			14		310 HB		6.4		0.26	70	120			90	
Ferritic & Martensitic		6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.11	0.36	150	210	1.0	0.30	190	
			13		42 HRc		6.4		0.29	90	150			130	
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.13	0.46	150	240	1.0	0.35	200	
			15		200 HB		9.0		0.46		220			180	
			16		250 HB		9.0		0.46		190			160	
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.11	0.41	100	200	1.0	0.30	180	
			17,19				200 HB		9.0		0.41			180	150
			18,20				250 HB		9.0		0.41			150	130
High Temp Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.5	6.4	0.08	0.26	25	45	1.0	0.24	32	
			33	Inconel 700	250 HB		6.4		0.26		45			30	
			34	Stellite 21	350 HB		6.4		0.26		45			30	
	Ti based	10	36	TiAl6V4	-	0.5	6.4	0.08	0.29	40	65	1.0	0.27	55	
			37	T40	-		6.4		0.26	30	55			40	
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.4	3.2	0.07	0.26	40	80	0.7	0.21	60	
			38		50 HRc		1.9		0.23		70			55	
			38		55 HRc		1.0		0.20		60			50	
	Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.4	2.6	0.07	0.26	40	80	0.7	0.21	50	
	White Cast Iron		41	G-X300CrMo15	55 HRc	0.4	1.0	0.07	0.20	30	60	0.7	0.18	40	
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	9.0	0.13	0.46	200	400	1.0	0.38	280	

