

## APKT 100340 PDTR LT 30

Material Group	Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/tooth]		V <sub>c</sub> [m/min]		Optimal cutting conditions			
					min	max	min	max	min	max	D.O.C.	Feed	V <sub>c</sub>	
Steel	Non-alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	9.0	0.13	0.46	190	330	1.0	0.35	250	
		2		190 HB		9.0		0.46		300			220	
		3		250 HB		9.0		0.46		250			200	
	Low alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.11	0.36	150	240	1.0	0.30	200	
				230 HB		9.0		0.36	150	210			180	
				280 HB		9.0		0.32	130	190			150	
				350 HB		9.0		0.32	130	170			140	
	High alloyed	3	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	
				280 HB		6.4		0.32	90	130			120	
				320 HB		6.4		0.26	60	110			100	
				350 HB		6.4		0.26	60	90			80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.11	0.36	190	250	1.0	0.30	220	
				240 HB		9.0		0.08	0.32	160			210	190
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	6.4	0.08	0.26	70	130	1.0	0.24	100	
				310 HB		6.4		0.26	70	120			90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.11	0.36	150	210	1.0	0.30	190	
				42 HRC		6.4		0.29	90	150			130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.13	0.46	150	240	1.0	0.35	200	
				200 HB		9.0		0.46		220			180	
				250 HB		9.0		0.46		190			160	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.11	0.41	100	200	1.0	0.30	180	
				200 HB		9.0		0.41		180			150	
				250 HB		9.0		0.41		150			130	
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800	0.5	6.4	0.08	0.26	25	45	1.0	0.24	32		
			Inconel 700		6.4		0.26		45			30		
			Stellite 21		6.4		0.26		45			30		
	Ti based	10	TiAl6V4	0.5	6.4	0.08	0.29	40	65	1.0	0.27	55		
			T40		6.4		0.26	30	55			40		
Hardened Mat.	Steel	11	X100CrMo13, 440C,	0.4	3.2	0.07	0.26	40	80	0.7	0.20	60		
			G-X260NiCr42		1.9		0.23		70			55		
			55 HRC		1.0		0.20		60			50		
	Chilled Cast Iron	40	Ni-Hard 2	0.4	2.6	0.07	0.26	40	80	0.7	0.21	50		
	White Cast Iron	41	G-X300CrMo15	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

