

## APKT 1604 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	15.0	0.18	0.32	190	330	4.0	0.23	250		
		2		190 HB									220		
		3		250 HB									200		
	Low alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	15.0	0.15	0.25	150	240	4.0	0.20	0.18	200	
				4,6										230 HB	180
				5,7										280 HB	150
				8										350 HB	140
	High alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	10.7	0.12	0.22	90	150	3.0	0.18	0.16	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	15.0	0.15	0.25	190	250	4.0	0.20	220		
				14									240 HB	190	
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	10.7	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	15.0	0.15	0.25	150	210	4.0	0.20	0.16	190	
				13										42 HRC	130
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	15.0	0.18	0.32	150	240	4.0	0.23	200		
				15									200 HB	180	
				16									250 HB	160	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	15.0	0.15	0.28	100	200	4.0	0.20	0.18	180	
				17,19										200 HB	150
				18,20										250 HB	130
High Temp. Alloys	Fe, Ni & Co based	9	31,32 Incoloy 800	0.5	10.7	0.12	0.18	25	45	3.0	0.16	0.18	32		
			33 Inconel 700										30		
			34 Stellite 21										30		
	Ti based	10	36 TiAl6V4	0.5	10.7	0.12	0.20	40	65	3.0	0.18	0.16	55		
			37 T40										40		
Hardened Mat.	Steel	11	38 X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	5.4	0.10	0.18	40	80	2.0	0.14	60		
			38	50 HRc									55		
			38	55 HRc									50		
	Chilled Cast Iron	40 Ni-Hard 2	400 HB	0.5	4.3	0.10	0.18	40	80	1.5	0.14	50			
	White Cast Iron	41 G-X300CrMo15	55 HRc	0.5	1.6	0.10	0.14	30	60	1.0	0.12	40			
NF	Al (>8%Si)	12	25 AISi12	130 HB	0.5	15.0	0.18	0.32	200	400	4.0	0.25	280		

