

TPKR 2204 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, 1045, 1060, 28Mn6	125 HB	0.5	18.0	0.16	0.22	190	330	4.0	0.17	250		
		2		190 HB		220									
		3		250 HB		200									
	Low alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	18.0	0.14	0.18	150	240	4.0	0.15	200		
		4,6		230 HB		180									
		5,7		280 HB		180									
		8		350 HB		180									
	High alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	12.9	0.11	0.15	90	150	3.0	0.13	130		
		10		280 HB		12.9		0.15		90			130		
		11		320 HB		12.9		0.13		60			110		
		11		350 HB		12.9		0.13		60			90		
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	18.0	0.14	0.15	190	250	4.0	0.13	220		
		14		240 HB		18.0		0.11		0.14			160	210	190
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	12.9	0.11	0.13	70	130	3.0	0.12	100		
		14		310 HB		12.9		0.13		120			90		
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	18.0	0.14	0.15	150	210	4.0	0.13	190		
		13		42 HRC		12.9		0.13		90			150	3.0	0.12
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	18.0	0.16	0.22	150	240	4.0	0.17	200		
		15		200 HB		0.22		220							
		16		250 HB		0.22		190							
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	18.0	0.14	0.20	100	200	4.0	0.15	180		
		17,19		200 HB		0.20		180							
		18,20		250 HB		0.20		150							
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	12.9	0.11	0.13	25	45	3.0	0.12	32		
		33		250 HB		0.13		45							
		34		350 HB		0.13		45							
	Ti based	10	TiAl6V4, T40	-	0.5	12.9	0.11	0.14	40	65	3.0	0.13	55		
37	-	12.9		0.13		30		55		0.12			40		
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRC	0.5	6.4	0.09	0.13	40	80	2.0	0.10	60		
		38		50 HRC		4.5		0.11		70			1.5	0.09	55
		38		55 HRC		3.9		0.10		60			1.0	0.09	50
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	5.1	0.09	0.13	40	80	1.5	0.10	50		
	White Cast Iron	41	G-X300CrMo15	55 HRC	0.5	3.9	0.09	0.10	30	60	1.0	0.09	40		
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	18.0	0.16	0.22	200	400	4.0	0.18	280	