

MACHINING CONDITIONS - MILLING - DEPTH OF CUT AND FEED

APKT 100332 PDTR

Material Group	Lamina Gr. N°	Material Examples	Hardness	DOC [mm]		Feed [mm/z]		Suggested Starting Parameters			
				min	max	min	max	DOC	Feed		
P	Non Alloyed	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.50	9.00	0.13	0.32	1.00	0.23		
			190 HB								
			250 HB								
	Low Alloyed	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.50	9.00	0.10	0.25	1.00	0.20		
			230 HB				0.22		0.18		
			280 HB								
			350 HB								
	High Alloyed	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.50	6.40	0.08	0.22	1.00	0.18		
			280 HB				0.18		0.16		
			320 HB								
			350 HB								
M	Austenitic	304, 316, X5CrNi18-9	180 HB	0.50	9.00	0.10	0.25	1.00	0.20		
			240 HB			0.08	0.22				
	Duplex	X2CrNiN23-4, S31500	290 HB	0.50	6.40	0.08	0.18	1.00	0.16		
			310 HB						0.16		
	Ferritic & Martensitic	410, X6Cr17, 17-4PH, 430	200 HB	0.50	9.00	0.10	0.25	1.00	0.20		
			42 HRc		6.40		0.20		0.16		
K	Grey	GG20, GG40, EN-GJL-250, N030B	150 HB	0.50	9.00	0.13	0.32	1.00	0.23		
			200 HB								
			250 HB								
	Malleable & Nodular	GGG40, GGG70, 50005	150 HB	0.50	9.00	0.10	0.28	1.00	0.20		
			200 HB								
250 HB											
S	Fe, Ni & Co based	Incoloy 800	240 HB	0.50	6.40	0.08	0.18	1.00	0.16		
		Inconel 700	250 HB								
		Stellite 21	350 HB								
	Ti based	TiAl6V4	-	0.50	6.40	0.08	0.20	1.00	0.18		
			T40				-		0.18	0.16	
H	Steel	X100 CrMo13, 440C, G-X260NiCr42	45 HRc	0.40	3.20	0.07	0.18	0.70	0.14		
			50 HRc		1.90		0.16		0.13		
			55 HRc		1.00		0.14		0.12		
	Chilled Cast Iron	Ni-Hard 2	400 HB		2.60		0.18		0.14		
			White Cast Iron		G-X300CrMo15		55 HRc		1.00	0.14	0.12
NF	Aluminium	AlSi12	130 HB	0.50	9.00	0.13	0.32	1.00	0.25		

The depth of cut and feed rate tables are for the geometry and corner radius specified above the table. Refer to cutting speed tables on page 226 for recommended materials per grade.