

MACHINING CONDITIONS - MILLING - DEPTH OF CUT AND FEED

APKT 160432 PDTR

Material Group	Lamina Gr. N°	Material Examples	Hardness	DOC [mm]		Feed [mm/z]		Suggested Starting Parameters		
				min	max	min	max	DOC	Feed	
Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.50	15.00	0.18	0.32	5.00	0.23	
			190 HB							
			250 HB							
Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.50	15.00	0.15	0.25	5.00	0.20	
			230 HB				0.22		0.18	
			280 HB							
			350 HB							
High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.50	10.70	0.12	0.22	3.80	0.18	
			280 HB				0.18		0.16	
			320 HB							
			350 HB							
Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.50	15.00	0.15	5.00	0.20		
			240 HB			0.25				
						0.22				
Duplex	5	X2CrNiN23-4, S31500	290 HB	0.50	10.70	0.12	0.18	3.80	0.16	
			310 HB							
Ferritic & Martensitic	6	410, X6Cr17, 17-4PH, 430	200 HB	0.50	15.00	0.15	0.25	5.00	0.20	
			42 HRc		10.70		0.20			3.80
Grey	7	GG20, GG40, EN-GJL-250, N030B	150 HB	0.50	15.00	0.18	0.32	5.00	0.23	
			200 HB							
			250 HB							
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.50	15.00	0.15	0.28	5.00	0.20	
			200 HB							
			250 HB							
Fe, Ni & Co based	9	Incoloy 800	240 HB	0.50	10.70	0.12	0.18	3.80	0.16	
		Inconel 700	250 HB							
		Stellite 21	350 HB							
Ti based	10	TiAl6V4	-	0.50	10.70	0.12	0.20	3.80	0.18	
		T40	-				0.18		0.16	
Steel	11	X100 CrMo13, 440C, G-X260NiCr42	45 HRc	0.50	5.40	0.10	0.18	2.50	0.14	
			50 HRc		3.20		0.16	1.90	0.13	
			55 HRc		1.60		0.14	1.30	0.12	
		Chilled Cast Iron	Ni-Hard 2		400 HB		4.30	0.18	1.90	0.14
			White Cast Iron		G-X300CrMo15		55 HRc	1.60	0.14	1.30
Aluminium	12	AlSi12		130 HB	0.50	15.00	0.18	0.32	5.00	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.