

MACHINING CONDITIONS - MILLING - DEPTH OF CUT AND FEED

TPKN 1603 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	12.00	0.14	0.27	3.00	0.19
			190 HB						
			250 HB						
	Low Alloyed	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.50	12.00	0.12	0.21	3.00	0.17
			230 HB				0.19		0.15
			280 HB						
			350 HB						
	High Alloyed	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.50	8.60	0.10	0.19	2.30	0.15
			280 HB				0.15		0.14
			320 HB						
			350 HB						
K	Grey	GG20, GG40, EN-GJL-250, N030B	150 HB	0.50	12.00	0.14	0.27	3.00	0.19
			200 HB						
			250 HB						
	Malleable & Nodular	GGG40, GGG70, 50005	150 HB	0.50	12.00	0.12	0.24	3.00	0.17
			200 HB						
			250 HB						
H	Steel Chilled Cast Iron White Cast Iron	X100 CrMo13, 440C, G-X260NiCr42	45 HRc	0.50	4.30	0.08	0.15	1.50	0.12
			50 HRc		3.00		0.14	1.10	0.11
			55 HRc		2.60		0.12	0.80	0.10
			Ni-Hard 2		3.40		0.15	1.10	0.12
			G-X300CrMo15		55 HRc		2.60	0.12	0.80

TPKN 2204 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	18.00	0.16	0.27	4.00	0.19	
			190 HB							
			250 HB							
	Low Alloyed	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.50	18.00	0.14	0.21	4.00	0.17	
			230 HB				0.19		0.15	
			280 HB							
	High Alloyed	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	350 HB	0.50	12.90	0.11	0.19	3.00	0.15	
			220 HB				0.15		0.13	
			280 HB							
	K	Grey	GG20, GG40, EN-GJL-250, N030B	220 HB	0.50	18.00	0.16	0.27	4.00	0.19
				200 HB						
250 HB										
Malleable & Nodular		GGG40, GGG70, 50005	150 HB	0.50	18.00	0.14	0.24	4.00	0.17	
			200 HB							
			250 HB							
H	Steel Chilled Cast Iron White Cast Iron	X100 CrMo13, 440C, G-X260NiCr42 Ni-Hard 2 G-X300CrMo15	45 HRc	0.50	6.40	0.09	0.15	2.00	0.12	
			50 HRc		4.50		0.14	1.50	0.11	
			55 HRc		3.90		0.12	1.00	0.10	
			400 HB		5.10		0.15	1.50	0.12	
			55 HRc		3.90		0.12	1.00	0.10	

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.