

Material Group		Gr. N°	Material Examples	Hardness	Vc [m/min]	
					min	max
P	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	70	120
				190 HB	65	110
				250 HB	60	100
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	65	110
				230 HB	60	90
				280 HB	55	85
				350 HB	55	80
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	60	90
				280 HB	55	80
				320 HB	55	75
				350 HB	50	70
M	Austenitic	4	304, 316, X5CrNi18-9	180 HB	60	80
				240 HB	50	70
	Duplex	5	X2CrNiN23-4, S31500	290 HB	-	-
				310 HB	-	-
	Ferritic & Martensitic	6	410, X6Cr17, 17-4PH, 430	200 HB	40	60
				42 HRc	30	45
K	Grey	7	GG20, GG40, EN-GJL-250, N030B	150 HB	70	120
				200 HB	65	110
				250 HB	55	100
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	65	110
				200 HB	60	100
				250 HB	55	90
S	Fe, Ni & Co based	9	Incoloy 800	240 HB	-	-
			Inconel 700	250 HB	-	-
			Stellite 21	350 HB	-	-
	Ti based	10	T40	-	-	-
			TiAl6V4	-	-	-
H	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	35	60
				50 HRc	30	50
				55 HRc	-	-
	Chilled Cast Iron		Ni-Hard 2	400 HB	-	-
	White Cast Iron		G-X300CrMo15	55 HRc	-	-
NF	Aluminium	12	AlSi12	130 HB	120	180

Material Group	Gr. N°	Material Examples	Hardness	Profiling		Slotting		fz [mm/tooth]				
				ap	ae	ap	Ø6.0	Ø8.0	Ø10.0	Ø12.0	Ø16.0	
P	Non-Alloyed	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	1.5xØ	0.5xØ	1.0xØ	0.032	0.044	0.052	0.062	0.084	
			190 HB									
			250 HB									
	Low Alloyed	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	1.5xØ	0.5xØ	1.0xØ	0.031	0.042	0.050	0.059	0.074	
			230 HB			0.7xØ						0.026
			280 HB			0.027	0.037	0.044	0.051	0.059		
			350 HB								0.6xØ	0.020
	High Alloyed	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	1.5xØ	0.5xØ	1.0xØ	0.027	0.037	0.044	0.051	0.059	
			280 HB			0.6xØ						0.020
			320 HB			0.020	0.028	0.033	0.039	0.042		
			350 HB									
M	Austenitic	304, 316, X5CrNi18-9	180 HB	1.5xØ	0.5xØ	1.0xØ	0.022	0.030	0.036	0.042	0.054	
			240 HB									
	Ferritic & Martensitic	410, X6Cr17, 17-4 PH, 430	200 HB	1.5xØ	0.5xØ	1.0xØ	0.017	0.023	0.028	0.032	0.040	
			42 HRc									
K	Grey	GG20, GG40, EN-GJL-250, No30B	150 HB	1.5xØ	0.5xØ	1.0xØ	0.037	0.051	0.061	0.071	0.079	
			200 HB									
			250 HB									
	Malleable & Nodular	GGG40, GGG70, 50005	150 HB	1.5xØ	0.5xØ	1.0xØ	0.032	0.044	0.052	0.062	0.075	
			200 HB									
			250 HB									
H	Steel	X100CrMo13, 440C, G-X260NiCr42	45 HRc	1.5xØ	0.3xØ	0.2xØ	0.014	0.019	0.022	0.026	0.029	
			50 HRc									
NF	Al (>8%Si)	AlSi12	130 HB	1.5xØ	0.5xØ	0.1xØ	0.034	0.046	0.055	0.065	0.084	