

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
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	Ø1.0	Ø2.0	Ø3.0	Ø4.0	Ø5.0	
P	Non-Alloyed	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	1.5xØ	0.5xØ	1.0xØ	0.008	0.010	0.014	0.019	0.024	
			190 HB									
			250 HB									
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	1.5xØ	0.5xØ	1.0xØ	0.008	0.009	0.013	0.020	0.024
				230 HB			0.7xØ					
				280 HB								
				350 HB								
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	1.5xØ	0.5xØ	1.0xØ	0.007	0.008	0.012	0.017	0.021
				280 HB			0.6xØ					
320 HB												
350 HB												
M	Austenitic	4	304, 316, X5CrNi18-9	180 HB	1.5xØ	0.5xØ	1.0xØ	0.006	0.007	0.010	0.014	0.017
				240 HB								
M	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	1.5xØ	0.5xØ	1.0xØ	0.004	0.005	0.007	0.011	0.013
				42 HRc								
K	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	1.5xØ	0.5xØ	1.0xØ	0.010	0.011	0.016	0.023	0.029
				200 HB								
				250 HB								
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	1.5xØ	0.5xØ	1.0xØ	0.008	0.010	0.014	0.020	0.025
				200 HB								
				250 HB								
H	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	1.5xØ	0.3xØ	0.2xØ	0.003	0.004	0.005	0.009	0.011
				50 HRc								
NF	Al (>8%Si)	12	AlSi12	130 HB	1.5xØ	0.5xØ	0.1xØ	0.009	0.010	0.015	0.021	0.026