

Material Group	Group No	Material Examples*	Brinell hardness	d.o.c [mm]		feed [mm/tooth]		V <sub>c</sub> [m/min]	
				min	max	min	max	min	max
Low Carbon Steel	1	Ck 15 9SMnPb28	150	0.5	3.5	0.15	0.52	190	350
			180		3.5		0.52		300
			210		3.5		0.52		260
Alloy Steel	2	42 CrMo 4 100 Cr 6 32 NiCrMo 14.5	180	0.5	3.5	0.15	0.48	150	240
			230		3.5		0.48		210
			280	0.5	3.5	0.15	0.40	130	190
			320		3.5		0.40		170
High Alloy Steel	3	X38 CrMoV 5 X210 CrW 12 X90 CrMoV 8	220	0.5	3.5	0.12	0.42	90	150
			280		3.5		0.42		130
			320	0.5	3.5	0.12	0.38	60	110
			350		3.5		0.38		90
Austenitic Stainless Steel	4	303 / 304 304 L	210 to 250	0.5	3.5	0.12	0.35	170	250
	5	316 / 316 L	230 to 270	0.5	3.5	0.12	0.32	150	210
	6	316 Ti 630 (F16PH)	-----	0.5	3.5	0.12	0.28	70	150
Ferritic Stainless Steel	7	430 / 439 / 444	Annealed	0.5	3.5	0.12	0.35	150	210
Martensitic Stainless Steel	8	410 / 420	Annealed	0.5	3.5	0.12	0.35	150	230
			Treated	0.5	3.5	0.12	0.28	90	170
Grey Cast Iron	9	EN - GJL 200	140 to 230	0.5	3.5	0.15	0.60	170	300
		EN - GJL 250							250
		EN - GJL 300							210
Nodular Cast Iron	10	EN - GJS 400	210	0.5	3.5	0.12	0.50	120	210
		EN - GJS 600	260						170
		EN - GJS 800	310						150
Nickel Based Alloys	11	Inconel 625	-----	0.5	3.5	0.12	0.32	25	35
		Inconel 718						28	40
		Hastelloy C						40	60
Titanium Based Alloys	12	TiAl 6 V4	-----	0.5	3.5	0.12	0.35	35	60
		T40					0.28	28	40

\*For all material types and standards, see pages 240 to 245.



Material Group	Group No	Material Examples*	Brinell hardness	d.o.c [mm]		feed [mm/tooth]		V <sub>c</sub> [m/min]		
				min	max	min	max	min	max	
Low Carbon Steel	1	Ck 15 9SMnPb28	150	0.5	4.0	0.23	0.52	190	350	
			180		4.0		0.52		300	
			210		4.0		0.52		260	
Alloy Steel	2	42 CrMo 4 100 Cr 6 32 NiCrMo 14.5	180	0.5	4.0	0.20	0.48	150	240	
			230		4.0		0.48		210	
			280	0.5	4.0	0.20	0.45	130	190	
			320		4.0		0.45		170	
High Alloy Steel	3	X38 CrMoV 5 X210 CrW 12 X90 CrMoV 8	220	0.5	4.0	0.15	0.42	90	150	
			280		4.0		0.42		130	
			320	0.5	4.0	0.15	0.38	60	110	
			350		4.0		0.38		90	
Austenitic Stainless Steel	4	303 / 304 304 L	210 to 250	0.5	4.0	0.18	0.35	170	250	
	5	316 / 316 L	230 to 270	0.5	4.0	0.18	0.32	160	210	
	6	316 Ti 630 (F16PH)	-----	0.5	4.0	0.15	0.28	70	150	
Ferritic Stainless Steel	7	430 / 439 / 444	Annealed	0.5	4.0	0.21	0.38	150	210	
Martensitic Stainless Steel	8	410 / 420	Annealed	0.5	4.0	0.21	0.38	150	230	
			Treated	0.5	4.0	0.21	0.32	90	170	
Grey Cast Iron	9	EN - GJL 200	140 to 230	0.5	4.0	0.22	0.50	170	300	
		EN - GJL 250							250	
		EN - GJL 300							210	
Nodular Cast Iron	10	EN - GJS 400	210	0.5	4.0	0.18	0.45	120	210	
		EN - GJS 600	260						170	
		EN - GJS 800	310						150	
Nickel Based Alloys	11	Inconel 625	-----	0.5	4.0	0.16	0.32	25	35	
		Inconel 718							28	40
		Hastelloy C							40	60
Titanium Based Alloys	12	TiAl 6 V4	-----	0.5	4.0	0.18	0.32	35	60	
		T40					0.28	28	40	

\*For all material types and standards, see pages 240 to 245.