

MACHINING DATA FOR INDEXABLE INSERT THREADING TOOLS

Main ISO-group	Workpiece Material	Condition	Material Group	Tensile Strength (N/mm ²)	Hardness	IN 2005	
						Cutting speed (SFM)	
P	Non-alloy Steel, Cast Steel, Free Cutting Steel	< 0,25 % C	Annealed	1	420	125	330-1085
		>= 0,25 % C	Annealed	2	650	190	265-690
		< 0,55 % C	Quenched and Tempered	3	850	250	215-600
		>= 0,55 % C	Annealed	4	750	220	360-590
	Low Alloy Steel and Cast Steel (with less than 5 % C)	Quenched and Tempered	5	1000	300	315-525	
		Annealed	6	600	200	300-525	
		Quenched and Tempered	7	930	275	215-660	
		Quenched and Tempered	8	1000	300	230-690	
	High Alloy Steel, Cast Steel and Tool Steel	Quenched and Tempered	9	1200	350	315-525	
		Annealed	10	680	200	430-600	
		Quenched and Tempered	11	1100	325	245-330	
M	Stainless Steel and Cast Steel	Ferritic, martensitic	12	680	200	360-600	
		Martensitic	13	820	240	230-510	
		Austenitic	14	600	180	280-330	
K	Gray Cast Iron (GG)	Ferritic	15	-	180	230-495	
		Pearlitic	16	-	260	360-500	
	Cast Iron Nodular (GGG)	Ferritic	17	-	160	400-525	
		Pearlitic	18	-	250	245-525	
	Malleable Cast Iron	Ferritic	19	-	130	400-525	
		Pearlitic	20	-	230	360-500	
N	Aluminum-wrought Alloy	Uncured	21	-	60	525-985	
		Cured	22	-	100	525-985	
	Aluminum Cast Alloy	<=12 % Si	Uncured	23	-	75	525-985
		Cured	24	-	90	525-985	
	Copper Alloys	>12 % Si	High temperature	25	-	130	525-985
		>1% Pb	Free cutting	26	-	110	525-985
			Brass	27	-	90	525-985
			Electrolitic copper	28	-	100	525-985
	Non-metallic	Duroplastics, fiber plastics	29	-	-	525-985	
		Hard Rubber	30	-	-	330-1315	
S	High Temp Alloys	Fe-based	Annealed	31	-	200	65-330
			Cured	32	-	280	65-330
		Ni/Co-based	Annealed	33	-	250	65-330
			Cured	34	-	350	65-330
			Cast	35	-	320	65-330
	Titanium & Titanium Alloys		36	RM 400	-	65-330	
		Alpha & beta alloys, cured	37	RM 1050	-	65-330	
H	Hardened Steel	Hardened	38	-	55 HRC	180-215	
		Hardened	39	-	60 HRC	150-180	
	Chilled Cast Iron	Cast	40	-	400	300-345	
	Cast Iron Nodular (GGG)	Hardened	41	-	55 HRC	180-215	

* For application specific feed rates, please refer to RapidThread Advisor - http://www.imc-companies.com/mtin_usa/