Insert	Size	Chipbreaker Geometry	Process type	Chipbreaker Type	Ground Wiper	Ground Edge	Ground Clamping Base
HM390 TCCT 0703PCR	07	PCR	SEMI AND FINISH	Positive	Yes	Yes	No
HM390 TCKT 0703PCTR		PCTR	ROUGH AND SEMI FINISH	Negative	No	No	No

Cutting Data

Tables attached provide insert selection and cutting data recommendations for HM390 TCKT 0703PCTR inserts.

For machining in unstable conditions, recommended tooth load should be reduced by 20-30%.

Cutting Speed Recommendations for HM390 TCKT 0703PCTR Inserts

ISO Class DIN/ISO 513	Workpiece Material: Description	Typical: AISI/SAE/ ASTM	Representative: DIN W.-Nr.	Hardness, HB	ISCAR Mat. Group[2]	Vc, m/min: IC 330	IC 830	IC 5400	IC 808	IC 810
P	Non-alloy steel	1020	1.044	130-180	1	150-180	150-200	150-180	150-200	150-200
	Alloy steel	4340	1.6582	260-300	8	100-120	140-170	120-150	140-170	140-170
	Alloy steel	4340	1.6582	HRC 35-42[1]	9	80-100	80-100		120-150	
	High alloy steel	H13	1.2344	200-220	10	100-120	140-170		140-170	
M	Martensitic s.s.	420	1.4021	200	12	150-180	150-200	120-150	150-200	
	Austenitic s.s.	304L	1.4306	200	14	100-140	120-140		120-140	
	Austenitic s.s.	316L	1.4404	140	14	100-140	120-140		120-140	
K	Grey cast iron	Class 40	0.6025 (GG25)	250	16		150-200			250-300
	Nodular cast iron	Class 65-45-12	0.7050 (GGG50)	200	17		150-180			200-250
H	Hard steel	H11	1.2343	HRC 45-49	38.1				60-80	
	Cast iron	P20	1.2330	HRC 50-55	38.2				40-60	

[1] Quenched and tempered

[2] ISCAR material grpoup in accordance with VDI 3323 standard

Feed Recommendations for HM390 TCKT 0703PCTR Inserts

ISO Class DIN/ISO 513	Workpiece Material: Description	Typical: AISI/SAE/ ASTM	Representative: DIN W.-Nr.	Hardness, HB	ISCAR Mat. Group[2]	Fz, mm/tooth: IC808	IC5400	IC810	IC830	IC330
P	Non-alloy steel	1020	1.044	130-180	1	0.08-0.15	0.08-0.15		0.08-0.15	0.08-0.15
	Alloy steel	4340	1.6582	260-300	8	0.08-0.15	0.08-0.15	0.08-0.15	0.08-0.15	0.08-0.15
	Alloy steel	4340	1.6582	HRC 35-42[1]	9	0.08-0.12	0.08-0.12		0.08-0.12	0.08-0.12
	High alloy steel	H13	1.2344	200-220	10	0.08-0.15	0.08-0.15		0.08-0.15	0.08-0.12
M	Martensitic s.s.	420	1.4021	200	12	0.08-0.15			0.08-0.15	0.08-0.12
	Austenitic s.s.	304L	1.4306	200	14	0.08-0.12			0.08-0.12	0.08-0.12
	Austenitic s.s.	316L	1.4404	140	14	0.08-0.12			0.08-0.12	0.08-0.12
K	Grey cast iron	Class 40	0.6025 (GG25)	250	16			0.08-0.12	0.08-0.12	
	Nodular cast iron	Class 65-45-12	0.7050 (GGG50)	200	17			0.08-0.12	0.08-0.12	
S	HTSA	Inconel 718	2.4668	HRC 36	34					
	Titanium alloys	AMS R56400	3.7165 (Ti6Al4V)	HRC 34	37					
H	Hard steel	H11	1.2343	HRC 45-49	38.1	0.06-0.1				
	Cast iron	P20	1.2330	HRC 50-55	38.2	0.05-0.08				

[1] Quenched and tempered

[2] ISCAR material grpoup in accordance with VDI 3323 standard