

## **Ingersoll's** **NEW GRADE** **TT 7100**



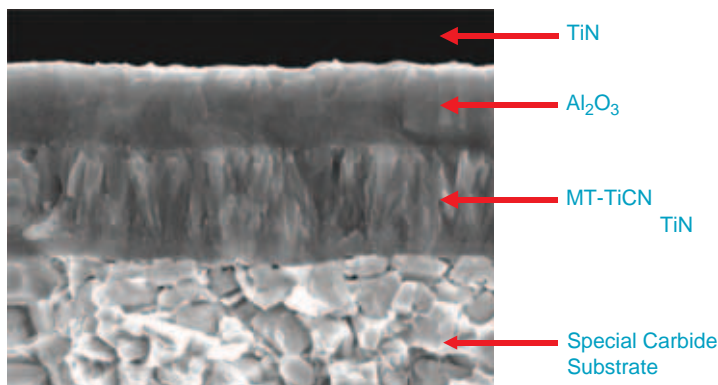
Ingersoll introduces a new grade of carbide turning inserts for heavy turning applications.

The grade TT7100 has been designed to provide a very tough substrate with a CVD coating. This combination provides improved resistance to fracture and insert chipping on heavy duty and interrupted cut applications across a wide range of steels and stainless steels.

### FEATURES & BENEFITS:

- Very tough carbide substrate base - with a CVD coating.
- This combination provides both excellent toughness and chipping resistance.
- Tough grade will provide stable cutting conditions on a wide range of medium to roughing applications at low cutting speed.
- Improved stability when heavy duty turning or when machining heavy interrupted cuts on steels and stainless steels.

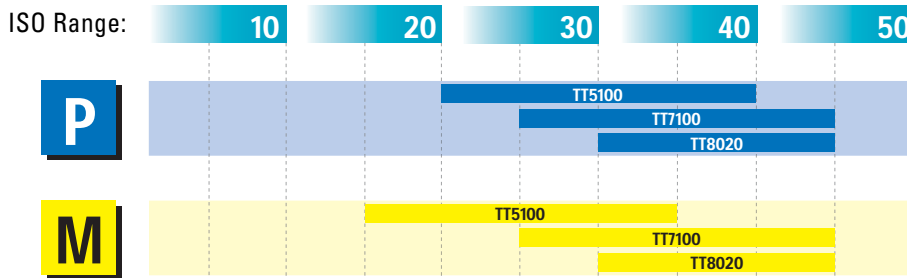
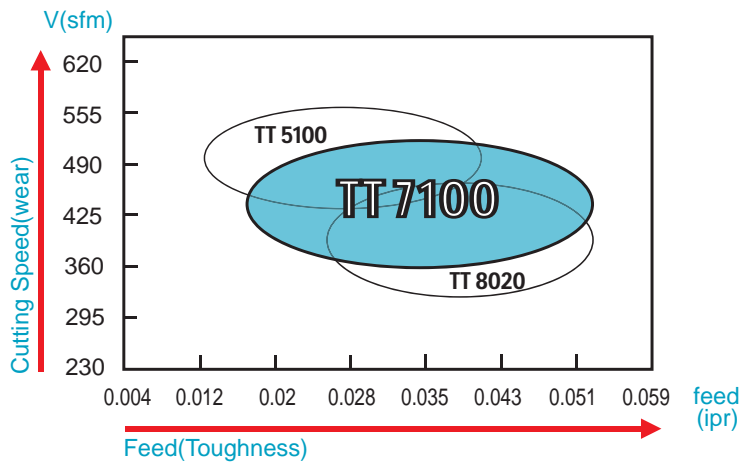
Micro-Structure of TT7100:



AVAILABLE STOCK ITEMS:

Item Number	ISO Designation	ANSI Designation	Item Number	ISO Designation	ANSI Designation
5517742	CNMG 120408	CNMG 432	5517581	KNUX 160405 R11	KNUX 3331 R11
5517185	CNMG 120408 MC	CNMG 432 MC	5517206	RCMX 250700	-
5516534	CNMG 120408 MT	CNMG 432 MT	5517325	RCMX 320900	-
5516780	CNMG 120408 RT	CNMG 432 RT	5517813	SCMT 09T308 MT	SCMT 32.52 MT
5517269	CNMG 120412 MT	CNMG 433 MT	5517818	SNMG 120404	SNMG 431
5517740	CNMG 120412 RT	CNMG 433 RT	5516949	SNMG 120408	SNMG 432
5516779	CNMG 160612 RT	CNMG 543 RT	5517817	SNMG 190612	SNMG 643
5517812	CNMG 190608	CNMG 642	5516781	SNMM 190612 RH	SNMM 643 RH
5517372	CNMG 190612	CNMG 643	5516901	SNMM 190616 RH	SNMM 643 RH
5517374	CNMG 190612 RT	CNMG 643 RT	5517887	SNMM 190624 RH	SNMM 644 RH
5516868	CNMG 190616 RT	CNMG 644 RT	5516882	SNMM 250724 HD	SNMM 856 HD
5517822	CNMG 250924 RT	CNMG 866 RT	5516976	SNMM 250724 RH	SNMM 856 RH
5517265	CNMM 190612 RH	CNMM 643 RH	5517739	SNMM 250924 HT	SNMM 866 HT
5516904	CNMM 190616 HD	CNMM 644 HD	5516942	TNMG 160408 MT	TNMG 332 MT
5517576	DNMG 150604 R-VF	DNMG 441 R-VF	5517820	TNMG 220408	TNMG 432
5516953	DNMG 150608 MC	DNMG 442 MC	5517120	TNMG 330716	TNMG 654
5517270	DNMG 150608 ML	DNMG 442 ML	5517815	TPMR 160304	TPMR 331
5516951	DNMG 150608 MT	DNMG 442 MT	5517819	WNMG 080408 MT	WNMG 432 MT
5517577	DNMG 150608 R-VF	DNMG 442 R-VF	5517821	WNMG 080408 RT	WNMG 432 RT

APPLICATION RANGE OF TT7100:



**FIELD TEST RESULTS:****Test 1.**

<b>Component:</b>	Roll, Stainless Steel	
<b>Cutting Speed (Vc):</b>	200 SFM	
<b>Feed Rate (f):</b>	.031 IPR	
<b>Depth of Cut (ap):</b>	.590"	
<b>Operation:</b>	External turning, dry	
<b>Tool Life</b>		
<b>Existing Method:</b>	SNMM (856) HP AC3000 (Sumitomo)	138 inches/edge
<b>Test Insert:</b>	SNMM (856) HD TT7100 (Ingersoll)	197 inches/edge

**Test 2.**

<b>Component:</b>	Scroll chuck saw, Low carbon alloy steel	
<b>Cutting Speed (Vc):</b>	525 SFM	
<b>Feed Rate (f):</b>	.009 IPR	
<b>Depth of Cut (ap):</b>	.080"	
<b>Operation:</b>	Heavy interrupted cut, dry	
<b>Tool Life</b>		
<b>Existing Method:</b>	CNMG (432) KT450 (Ingersoll)	1pcs/edge
<b>Test Insert:</b>	CNMG (432) MT TT7100 (Ingersoll)	3pcs/edge

**Test 3.**

<b>Component:</b>	Shaft, Hot forging	
<b>Cutting Speed (Vc):</b>	650 SFM	
<b>Feed Rate (f):</b>	.017 IPR	
<b>Depth of Cut (ap):</b>	.125"	
<b>Operation:</b>	External turning, wet	
<b>Tool Life</b>		
<b>Existing Method:</b>	DNMG (442) HM NC3020 (Korloy)	40pcs/edge
<b>Test Insert:</b>	DNMG (442) MT TT7100 (Ingersoll)	100pcs/edge

**Test 4.**

<b>Component:</b>	Upper ball joint case	
<b>Cutting Speed (Vc):</b>	850 SFM	
<b>Feed Rate (f):</b>	.012 IPR	
<b>Depth of Cut (ap):</b>	.080"	
<b>Operation:</b>	Face interrupted cut, dry	
<b>Tool Life</b>		
<b>Existing Method:</b>	CNMG (432) RT KT450 (Ingersoll)	50pcs/edge
<b>Test Insert:</b>	CNMG (432) RT TT7100 (Ingersoll)	80pcs/edge