



Insert Sizes:

3/16" I.C. (08), 1/4" I.C. (11),
3/8" I.C. (16)

Insert Styles:

M-Type and Regular Type

Thread Forms:

55° & 60° Partial Profile

UN

ISO

NPT

BSPT

W

Applications:

Internal and External Threading
High Cutting Speeds

Grade Information:

Submicron Grade Substrate
PVD-ALTiN/TiN

Materials:

Can be applied to all materials with
a strong focus on Stainless Steel and
High Temperature Alloys



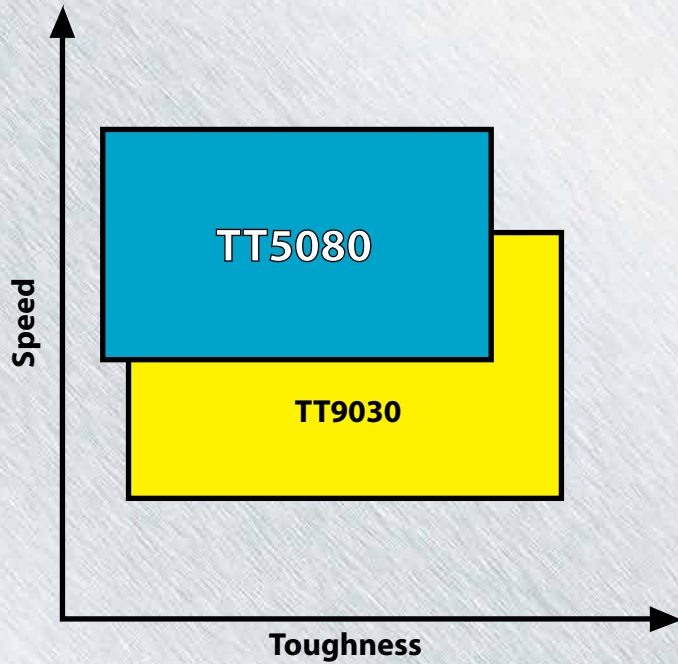
The new TT5080 grade for lathe threading applications features a very hard submicron grain substrate with PVD-ALTiN/TiN coating and special post coat treatment. This provides improved flaking and chipping resistance in the machining of all materials with a strong focus geared for the machining of stainless steel and high temperature alloys.

Features and Benefits

- Post coat treatment prevents built up edge
- Improved chip flow
- Improved flank wear resistance
- Resists high temperatures
- Improved adhesion of coating to substrate reduces flaking and chipping
- Submicron substrate provides excellent combination of hardness and toughness
- High plastic deformation resistance
- Ability to run faster reduces cycle times



TOTHREAD™ APPLICATION RANGE



TOTHREAD™ AVAILABLE INSERTS

60° Partial Profile	55° Partial Profile	UN Profile	NPT Profile	ISO Profile	BSPT Profile	Whitworth (W) Profile
08IRMA60	16ERM AG 55	16ERM 12 UN	16ERM 14 NPT	11IR 1.50 ISO	16ERM 11 BSPT	16ERM 11 W
11IRMA60	16IRM AG 55	16ERM 14 UN	16ERM 11.5 NPT	11IRM 1.50 ISO	16ERM 14 BSPT	16ERM 19 W
16ER AG 60		16ERM 16 UN	16IRM 11.5 NPT	16ER 1.00 ISO	16IRM 11 BSPT	16ERM 14 W
16ERM A 60		16ERM 18 UN	16IRM 14 NPT	16ER 1.50 ISO	16IRM 14 BSPT	16IRM 11 W
16ERM G 60		16ERM 20 UN	16IRM 8 NPT	16ER 2.00 ISO		16IRM 14 W
16IR AG 60		16IRM 12 UN		16ERM 1.00 ISO		
16IRM A 60		16IRM 16 UN		16ERM 1.25 ISO		
16IRM AG 60				16ERM 1.50 ISO		
16IRM G 60				16ERM 1.75 ISO		
22ERM N 60				16ERM 2.00 ISO		
22IRM N 60				16ERM 2.50 ISO		
				16ERM 3.00 ISO		
				16IR 1.50 ISO		
				16IRM 1.00 ISO		
				16IRM 1.50 ISO		
				16IRM 2.00 ISO		
				16IRM 2.50 ISO		
				16IRM 3.00 ISO		

Availability

In stock

Price

Available in the GAL system

**NEW**

ISO	Material	Condition	Hardness HB	TT9030	TT5080	
P	Non-alloy steel, cast steel, free cutting steel	0.1 - 0.25 %C	Annealed	125	380-620	440-750
		0.25 - 0.25 %C	Annealed	190	360-590	430-720
		0.25 - 0.25 %C	Quenched and tempered	250	330-570	390-690
		0.55 - 0.80 %C	Annealed	220	300-540	360-660
		0.55 - 0.80 %C	Quenched and tempered	300	300-540	360-660
	Low alloy steel and cast steel (less than 5% alloying elements)	Annealed		200	330-590	390-710
		Quenched and tempered		275	250-460	300-560
				300	230-440	280-520
				350	230-440	280-520
	High alloy steel, cast steel and tool steel.	Annealed		200	260-390	310-480
Quenched and tempered		325	160-330	200-390		
M	Stainless steel and cast steel	Ferritic/martensitic	200	230-430	280-510	
		Martensitic	240	280-360	330-430	
		Austenitic	180	300-460	360-560	
K	Grey cast iron (GG)	Pearlitic/ferritic	180	410-520	490-620	
		Pearlitic/martensitic	260	300-390	360-480	
	Ductile cast iron (nodular) (GGG)	Ferritic	160	230-430	280-510	
		Pearlitic	250	200-380	230-460	
	Malleable cast iron	Ferritic	130	200-230	230-280	
		Pearlitic	230	200-480	230-570	
N	Aluminum-wrought alloy	Not curable	60	330-1200	390-1440	
		Cured	100	260-720	310-870	
	Aluminum-cast, alloyed	<= 12% Si	Not curable	75	660-1310	790-1570
			Cured	90	660-920	790-1100
		> 12% Si	High temp.	130	660-920	790-1100
	Copper alloys	> 1% Pb	Free cutting	110	260-840	310-1000
			Brass	90	260-840	310-1000
			Electrolitic copper	100	260-840	310-1000
	Non-metallic	Duroplastics, fiber plastics			260-820	310-980
		Hard rubber			260-820	310-980
S	High temp. alloys Super alloys	Fe based	Annealed	200	150-200	180-230
			Cured	280	110-160	130-200
		Ni or Co based	Annealed	250	70-100	80-110
			Cured	350	50-80	60-100
	Titanium, Ti alloys		Cast	320	50-80	60-100
			Alpha+beta alloys cured		460-560	560-670
H	Hardened steel	Hardened	40-50 HRc	150-200	180-230	
		Hardened	51-55 HRc	150-200	180-230	
	Chilled cast iron	Cast	400	150-200	180-230	
	Cast iron	Hardened	55 HRc	150-200	180-230	