

**Engineered for Performance!**

**Ti-NAMITE<sup>®</sup>**

**TOOL COATINGS**

FROM

**SGS<sup>®</sup>**

**Tool Company**

An ISO 9001 Certified Company

*Ti-NAMITE tool coatings are specifically engineered for SGS<sup>®</sup> solid carbide rotary tools. This proprietary multi-layering process results in maximized tool life and increased speed and feed rates in any application.*

**SGS**

# Ti-NAMITE®



## Titanium Nitride (TiN)

A general-purpose coating allowing higher speeds and longer tool life, Ti-NAMITE is effective in a wide variety of metal cutting operations.

### Recommended for general purpose and applications in:

- Stainless Steel
- Medium Carbon Steel
- Alloyed Steel
- Copper Alloys
- Brass
- Bronze

#### Microhardness:

2200HV<sub>0.05</sub>

#### Coefficient of Friction:

.4 - .65

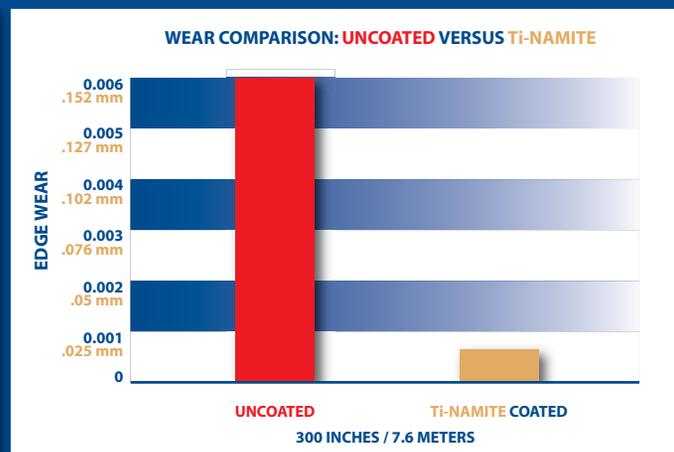
#### Oxidation Temperature:

600°C - 1112°F

#### Thickness:

1 - 4 Microns (based on tool diameter)

Tool Type:	Series 1 1/2"	Series 1 1/2"
	12.7 mm	12.7 mm
Condition:	<b>UNCOATED</b>	<b>Ti-NAMITE</b>
Material Type:	4140 STEEL	4140 STEEL
	DIN 1.7225	DIN 1.7225
Depth of Cut:	.500"	.500"
	12.7 mm	12.7 mm
Width of Cut:	.125"	.125"
	3.18 mm	3.18 mm
Spindle Speed:	1955 rpm	2933 rpm
	78 m/min.	117 m/min.
Feed:	23.5 IPM	32.5 IPM
	596.9 mm/m	825.5 mm/m



# Ti-NAMITE-C®

## Titanium Carbonitride (TiCN)

A harder, more lubricious coating offering better performance in steels over HRc 40 and aluminum alloys, Ti-NAMITE-C is violet-brown in color.



### Recommended for applications in:

- High Silicon Aluminum Alloys
- Titanium Alloys
- Low Carbon Steel
- Alloyed Steels

### Microhardness:

3000HV<sub>0.05</sub>

### Coefficient of Friction:

.3 - .45

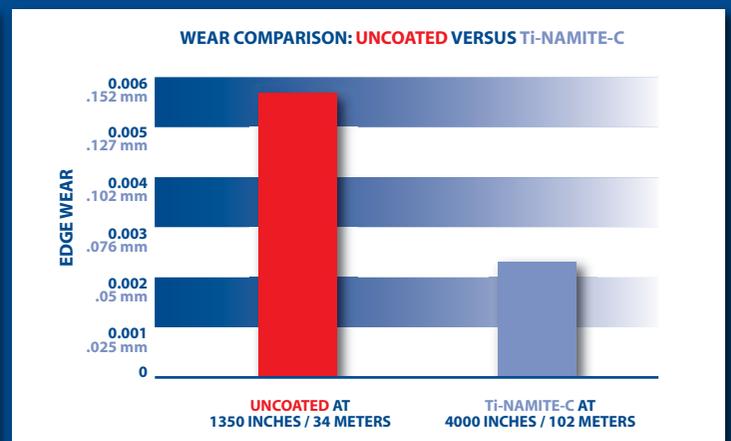
### Oxidation Temperature:

400°C - 752°F

### Thickness:

1 - 4 Microns (based on tool diameter)

Tool Type:	Series 1 1/2"	Series 1 1/2"
	12.7 mm	12.7 mm
Condition:	<b>UNCOATED</b>	<b>Ti-NAMITE-C</b>
Material Type:	1018 STEEL	1018 STEEL
	DIN 1.0453	DIN 1.0453
Depth of Cut:	.500"	.500"
	12.7 mm	12.7 mm
Width of Cut:	.125"	.125"
	3.2 mm	3.2 mm
Spindle Speed:	2782 rpm	4185 rpm
	111 m/min.	167 m/min.
Feed:	33 IPM	50 IPM
	838 mm/m	1270 mm/m



# Ti-NAMITE-A<sup>®</sup>

## Aluminum Titanium Nitride (AlTiN)

The most abrasion resistant and hardest coating, Ti-NAMITE-A is preferred for high speed and dry cutting and recommended for the machining of cast iron, hardened tool steels up to HRc 60 and other heat resistant alloys.

### Recommended for applications in:

- Cast Iron
- High Temperature Alloys
- Hardened Steels
- Stainless Steels



### Microhardness:

3300HV<sub>0.05</sub>

### Coefficient of Friction:

.45

### Oxidation Temperature:

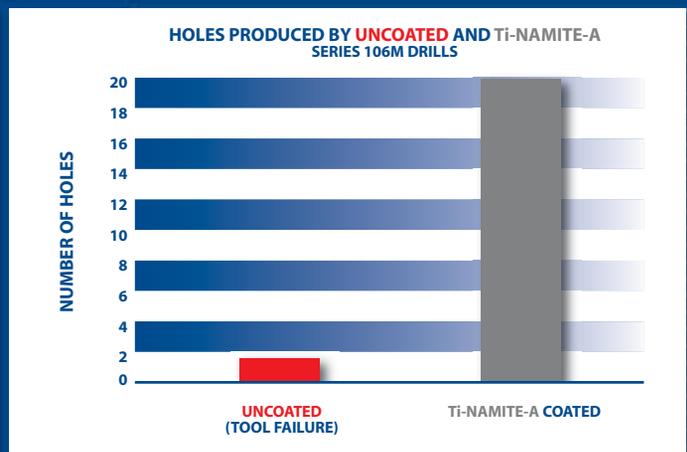
800°C - 1472°F

### Thickness:

1 - 4 Microns (based on tool diameter)

## Drilling Hardened Tool Steel

Tool Type:	Series 106M 6 mm	Series 106M 6 mm
	.2362"	.2362"
Condition:	<b>UNCOATED</b>	<b>Ti-NAMITE-A</b>
Material Type:	ISO 4957S5H5653	ISO 4957S5H5653
	M4 @ 64 HRc	M4 @ 64 HRc
Depth of Cut:	15 mm	15 mm
	.591"	.591"
Width of Cut:	.125"	.125"
	6 mm	6 mm
Spindle Speed:	9 m/min.	9 m/min.
	477 rpm	477 rpm
Feed:	25.4 mm/min.	25.4 mm/min.
	1 IPM	1 IPM



# Ti-NAMITE-B<sup>®</sup>



## Titanium DiBoride (TiB<sub>2</sub>)

Our toughest coating ever, recommended for use with silicon aluminum alloys and titanium alloys.

### Recommended applications in:

- High Silicon Aluminum Alloys
- Titanium Alloys

### Microhardness:

4000 HV

### Coefficient of Friction:

.45

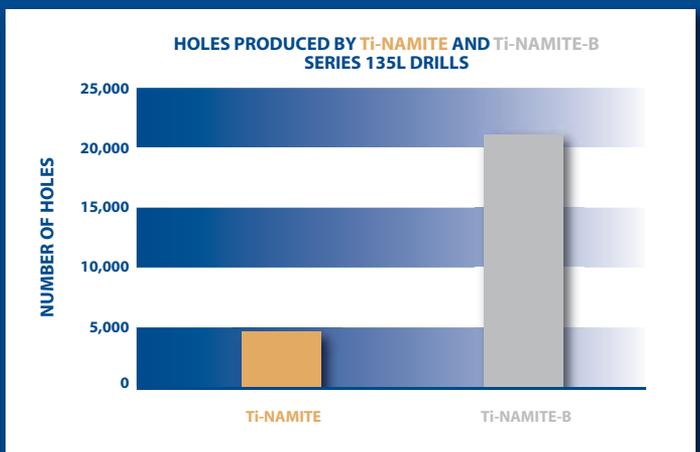
### Oxidation Temperature:

850°C - 1562°F

### Thickness:

1-2 Microns (based on tool diameter)

Tool Type:	Series 135L 1/4"	Series 135L 1/4"
	6.35mm	6.35mm
Condition:	<b>Ti-NAMITE</b>	Ti-NAMITE-B
Material Type:	6061 Aluminum	6061 Aluminum
	DIN AlMg1SiCu	DIN AlMg1SiCu
Depth of Cut:	1.600"	1.600"
	40.6mm	40.6mm
Width of Cut:	.2500"	.2500"
	6.35mm	6.35mm
Spindle Speed:	7500	10000
	150 m/min	200 m/min
Feed:	60 IPM	80 IPM
	1524 mm/min	2032 mm/min



# SGS<sup>®</sup>

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**TOOL COATINGS**

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