**Ti-NAMITE-B**

Titanium DiBoride (TiB₂)

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:**

0.45

**Oxidation Temperature:**

850°C - 1562°F

**Thickness:**

1-2 Microns (based on tool diameter)

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**Engineered for Performance!**

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

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**Tool Type:**

- **Material Type:**
  - 6061 Aluminum
    - DIN AlMg1SiCu

**Depth of Cut:**

- 1.600" (40.6mm)

**Width of Cut:**

- 0.2500" (6.35mm)

**Spindle Speed:**

- 7500 - 10000 - 150 m/min

**Feed:**

- 60 IPM - 80 IPM (1524 mm/min - 2032 mm/min)

**Recommended applications in:**

- High Silicon Aluminum Alloys
- Titanium Alloys
- Titanium DiBoride (TiB₂)

**Engineered for Performance!**
Recommended for general purpose and applications in:

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

**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.

**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.

**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 steels up to HRc 60 and other heat resistant alloys.

**Drilling Hardened Tool Steel**
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

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

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, high temperature alloys up to HRc 60 and other heat resistant alloys.

Recommended for applications for:
• Cast Iron
• High Temperature Alloys
• Hardened Steels
• Stainless Steels
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

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

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 steels up to HRc 60, and other heat resistant alloys.

Recommended for applications for:

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

Drilling Hardened Tool Steel

Tool Type:
- Series 106M 6 mm
  - .2362"
- Series 106M 10 mm
  - .3937"

Condition:
- UNCOATED
- Ti-NAMITE-A

Material Type:
- ISO 4957 S5 H5653
- M4 @ 64 HRc

Depth of Cut:
- 15 mm
- .591"

Width of Cut:
- .125"
- 3.175 mm

Spindle Speed:
- 9 m/min.
- 477 rpm

Feed:
- 25.4 mm/min.
- 1 IPM

Microhardness:
- 3300HV

Coefficient of Friction:
- .45

Oxidation Temperature:
- 800 °C - 1472 °F

Thickness:
- 1 - 4 Microns (based on tool diameter)
Ti-NAMITE-B

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

Recommended applications in:
- High Silicon Aluminum Alloys
- Titanium Alloys

Depth of Cut: 1.600”
Width of Cut: .2500”
Spindle Speed: 7500
Feed: 60 IPM
Microhardness: 4000 HV
Coefficient of Friction: .45
Oxidation Temperature: 850 °C - 1562 °F
Thickness: 1-2 Microns (based on tool diameter)

Engineered for Performance!

Ti-NAMITE tool coatings are specifically engineered for SGS® solid carbide rotary tools. This proprietary multi-layering process results in maximized tool life and increased speed and feeds in any application.
# Ti-NAMITE-B

**Titanium DiBoride (Tib₂)**

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

## Microhardness

4000 HV

## Oxidation Temperature

850 °C - 1562 °F

## Ti-NAMITE tool coatings

*Engineered for Performance!*

Engineered specifically for SGS® solid carbide rotary tools. This proprietary multi-layering process results in maximized tool life and increased speed and feed rates in any application.

## Recommended applications

- High Silicon Aluminum Alloys
- Titanium Alloys

## Specifications

<table>
<thead>
<tr>
<th>Tool Type</th>
<th>Ti-NAMITE</th>
<th>Ti-NAMITE-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter (in.)</td>
<td>6.35 mm</td>
<td>6.35 mm</td>
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<tr>
<td>Material Type</td>
<td>6061 Aluminum</td>
<td>6061 Aluminum</td>
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<tr>
<td>Depth of Cut</td>
<td>1.600”</td>
<td>1.600”</td>
</tr>
<tr>
<td>Width of Cut</td>
<td>0.250”</td>
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<tr>
<td>Spindle Speed</td>
<td>7500 – 10000 m/min</td>
<td>15000 – 20000 m/min</td>
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<tr>
<td>Feed</td>
<td>60 - 80 IPM</td>
<td>1524 – 2032 mm/min</td>
</tr>
<tr>
<td>Microhardness</td>
<td>4000 HV</td>
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<tr>
<td>Coefficient of Friction</td>
<td>.45</td>
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</tbody>
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**Recommended applications in:**

- High Silicon Aluminum Alloys
- Titanium Alloys

**Titanium DiBoride (Tib₂)**

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

## Microhardness

4000 HV

**Oxidation Temperature**

850 °C - 1562 °F

**Thickness**

1-2 Microns (based on tool diameter)