

**DURA-MAX[®]
4000 CARBIDE**

DURA-MAX[®] 4000 is a tough, general purpose sub-micron grain carbide. **DURA-MAX[®] 4000** is designed for roughing. This grade is recommended for cutting steels, stainless steel, nickel based alloys and applications where there are interrupted cuts.

DURA-MAX[®] 4000 approximates an ANSI C5/C6.

DURA-MAX[®] 4000 inserts are only available on MINI-BORE[®] style inserts, see Section 3 of this catalog for further detail.

**DURA-MAX[®]
5000 CARBIDE**

DURA-MAX[®] 5000 is a hard, abrasion resistant, sub-micron grain carbide. Because of its hardness and fine grain structure, **DURA-MAX[®] 5000** provides excellent edge and corner retention. This grade is recommended for cutting abrasive materials, non-ferrous alloys, aluminum, plastic and applications where there are no interrupted cuts.

DURA-MAX[®] 5000 approximates an ANSI C2/C3.

KAISER TOOL COMPANY, INC.

<p>TiN (TITANIUM NITRIDE)</p>	<p>Excellent general purpose PVD coating for most applications. TiN offers excellent wear resistance and allows 10% - 30% increase in speeds and feeds. TiN also increases lubricity at cutting edge which reduces galling and welding. TiN is not recommended for Nickel alloys or Titanium.</p> <p>Color: Yellow/gold</p> <p>Thickness: 2-4 microns (.0001"-.0002")</p>
<p>TiN/TiCN (TITANIUM NITRIDE/ TITANIUM CARBONITRIDE)</p>	<p>A multi-layer, PVD coating good for cutting Aluminum, Brass, Bronze, Copper and its alloys and Cast Iron. TiCN improves tool life and allows increased speeds and feeds. Should out-perform TiN in abrasive and difficult to machine materials. TiN/TiCN is harder and more impact resistant than TiN.</p> <p>Color: Gray/bronze</p> <p>Thickness: 2-6 microns (.0001"-.0004")</p>
<p>TiAlN (TITANIUM ALUMINUM NITRIDE)</p>	<p>A high performance PVD coating which excels in cutting abrasive or difficult-to-machine materials such as Titanium, Inconel, Waspaloy, Hastelloy, High Nickel Alloys, harder varieties of Stainless Steel. Good performance with interrupted cuts, high temperatures and dry machining.</p> <p>Color: Dark gray/black</p> <p>Thickness: 2-4 microns (.0001"-.0002")</p>
<p>DIAMOND</p>	<p>Works well in cutting Aircraft Aluminum, Automotive Cast Aluminum, Copper, Brass, Graphite, Carbon, Various Plastics, Nylon, Natural Wood, Composite Woods and Kurtzite. Diamond coating is not recommended for cutting steels or other ferrous metals.</p> <p>Color: Black</p> <p>Thickness: 2-6 microns (.0001"-.0004")</p>

Note on coolants:

THINBIT® inserts are compatible with all coolant types. Carbide and High Speed Steel give best performance in most materials when run flooded with coolant. Carbide does not perform well in thermal shock situations. Keep insert flooded or run dry.

Note on coatings:

Part numbers may not always include coating designation.

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