DURA-MAX® 2000 CARBIDE **DURA-MAX® 2000** is a versatile and tough sub-micron grain carbide. Because of its high transverse rupture strength and fine grain structure, **DURA-MAX® 2000** performs well with interrupted cuts. This grade is recommended for cutting steel, cast iron, stainless steel and applications where there are interrupted cuts. **DURA-MAX® 2000** approximates an ANSI C4/C5.

#### TIN (TITANIUM NITRIDE)

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.

Color: Yellow/gold

Thickness: 2-4 microns (.0001"-.0002")

## TIN/TICN (TITANIUM NITRIDE/ TITANIUM CARBONITRIDE)

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.

Color: Gray/bronze

Thickness: 2-6 microns (.0001"-.0004")

### TIAIN (TITANIUM ALUMINUM NITRIDE)

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.

Color: Dark gray/black

Thickness: 2-4 microns (.0001"-.0002")

#### DIAMOND

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.

Color: Black

Thickness: 2-6 microns (.0001"-.0004")

#### 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.

# GRADE & COATING