

CUTTING TOOLS

The layers developed by means of PVD Magnetron Sputtering present the best properties in terms of wear resistance and friction coefficient due to its high density and nano-structured growth. The absence of micro-droplets assures the polished surface after coating and an absolute homogeneity.



Hob: Hyperlox Blue

High hardness nano- structured PVD coatings

SUPERTIN Based on Titanium Nitride compound (TiN)

- For general machining applications, especially drilling and threading.
- Turning inserts.

TINALOX Based on AlTiN compound

- Machining of hardened steels, milling, drilling and threading.

ALOX Based on AlTiN compound

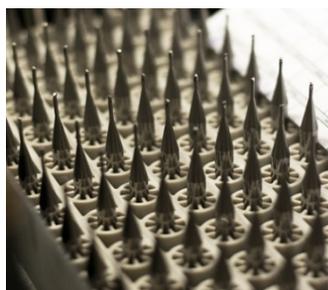
- Higher thickness for drilling applications.

HYPERLOX Based on AlTiN compound

- Very high hardness (3700 HV) and resistance to thermal-oxidation (1200°C).
- Machining of hardened steels (50-62 HRC) and stainless steel.
- Titanium alloys machining. Ti6Al4V.

HSN2 / HARDLOX Hipims Based on AlTiSiN compound

- Very high hardness (< 3700 HV) and resistance to thermal oxidation (up to 1200°C).
- Machining of soft steels and hardened steels.
- Machining of Nickel alloys.



Micro- end mills coated with Hyperlox

Hard and low friction PVD coatings for non-ferrous alloys machining

ALUSPEED Based on Diboride Titanium compound (TiB2)

- No affinity with Aluminum and Copper alloys. Avoids micro-welding (galling) on the cutting edge (built up edge) maintaining sharpness.
- High speed machining of Aluminum, Copper and their alloys, Bronze and Brass.

DALCUT Multilayer based on carbon structures – DLC

- Very low friction coefficient and no chemical affinity with Aluminum, Copper and their respective alloys.
- Machining Aluminum alloys at low speed and with minimum lubrication. Graphite and carbon-fiber machining.

SUPERCRN Multilayer based on Chromium Nitride (CrN)

- Machining Aluminum, Copper and non-ferrous alloys.



Inserts coated with HSN2

Polycrystalline diamond coatings (PCD)

CC DIA CARBONSPEED PCD monolayer for graphite machining

CC DIA FIBERSPEED PCD nanocrystalline multilayer

- Nano-crystalline layer of 4 microns (thin) and 8 microns (standard).
- Maintaining sharpness of cutting edges even at higher thickness.
- Machining and threading of carbon and fiber-reinforced plastics.

CCDIA MULTISPEED

- Alternate multilayer of PCD nano-structures of 3,12,15-total thickness.
- Machining of Carbon-fiber, fiber-reinforced plastics and compound-based materials for the aeronautic industry such as "sandwich" materials.



PCD, CC DIA Coatings

