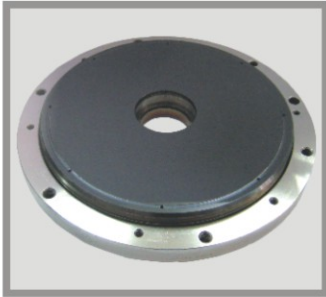


Professional film-coating

Diamond-like Carbon Film



Features :

- ❖ Extreme hardness HV: 2500~3500
- ❖ High corrosion resistance
- ❖ Smooth surface Ra: 1nm~2nm
- ❖ Low friction coefficient 0.05~0.1
- ❖ Anti-Sticking
- ❖ High thermal conductivity
- ❖ Low temperature processes (<200°C)
- ❖ Application environment (DLC<400°C · HTR-DLC<600°C)

PVD- Films

PVD-TiN, AlTiN, TiCN, AlTiCrN, TiAl_xSi_yN, Ti_xSi_yN, CrN

Features:

High hardness (Hv 2000~4500), film thickness (1~5 Um), good adhesion

Applications:

Cutting, milling, drilling, forming, molding, punching tools



CVD-Films

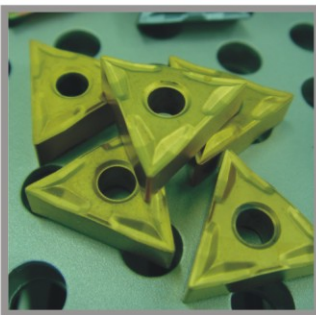
CVD-TiN, TiCN, Al₂O₃

Features:

- ❖ High hardness (Hv3500~4500), film thickness (5~15 Um), high adhesion
- ❖ High thermal stability, high oxidation resistance

Applications:

Turning tools, milling tools (milling cutter, end mills) and drills



Special film-coating

Rainbow Diamond Film



- ❖ Smooth surface Ra: 1nm~2nm
- ❖ Low friction coefficient 0.1~0.15
- ❖ Excellent chip removal while processing with aluminum, it can extend
- ❖ Enhanced service life over two times

Professional film-coating

Diamond Film

Features:

- High hardness (Hv7000 ~ 9000)
- High thermal conductivity
- Low coefficient of friction (0.05~ 0.1)
- Chemically inert, corrosion & wear



Applications:

Milling (Car) Knife:

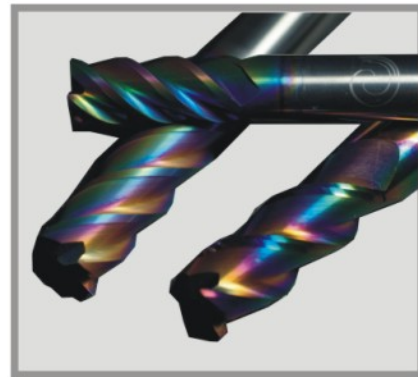
Graphite, ceramic, aluminum, copper and other non-metallic materials processing

Cutter Wheel:

- Material processing film for glass molds made of glass
- Thermal materials
- Semiconductor materials (Plated diamond film on silicon substrate)
- Electrochemical electrodes (p-type diamond)

TA Complex Film

- Multi coating, high hardness (HV: 3000~3500)
- Low friction coefficient (0.1~0.15)
- Excellent chip removal while processing with stainless steel (304 or 316)
- Service life span over three times in finish milling (processing depth < 1mm)



TS Complex Film

- Multi coating, high hardness (HV: 3800~4200)
- Low friction coefficient (0.1~0.15)
- Excellent chip removal

Milling (Car) Knife:

Heat treated steel (above HRC 45)

Titanium (Titanium Alloys), Nickel (Nickel Alloys) and Copper (Copper Alloys)

