Hard, harder, WSM01 – the no. 1 grade for demanding machining operations.

NEW

THE GRADE

- PVD HIPIMS coating technology for a smooth surface
- Excellent layer bonding with sharp cutting edges
- Extremely hard, wear-resistant ultra fine-grain carbide substrate

THE GEOMETRIES

- Negative basic shape: MS3, NMS, NRS
- Positive basic shape: FM2, MM4, MN2

THE APPLICATION

Primary application:

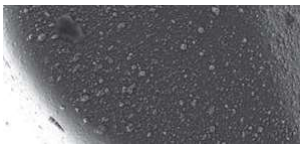
- ISO S – e.g. finishing of engine components made of Inconel 718
- ISO M – e.g. valves made of 1.4462 duplex steel

Secondary application:

- ISO P – e.g. precision finishing of tool steel
- ISO N – e.g. high-polish turning
- ISO H – e.g. machining of hardened steel with 56 HRC

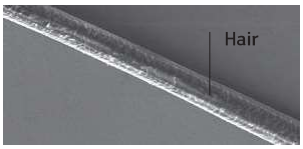
SURFACE COMPARISON:

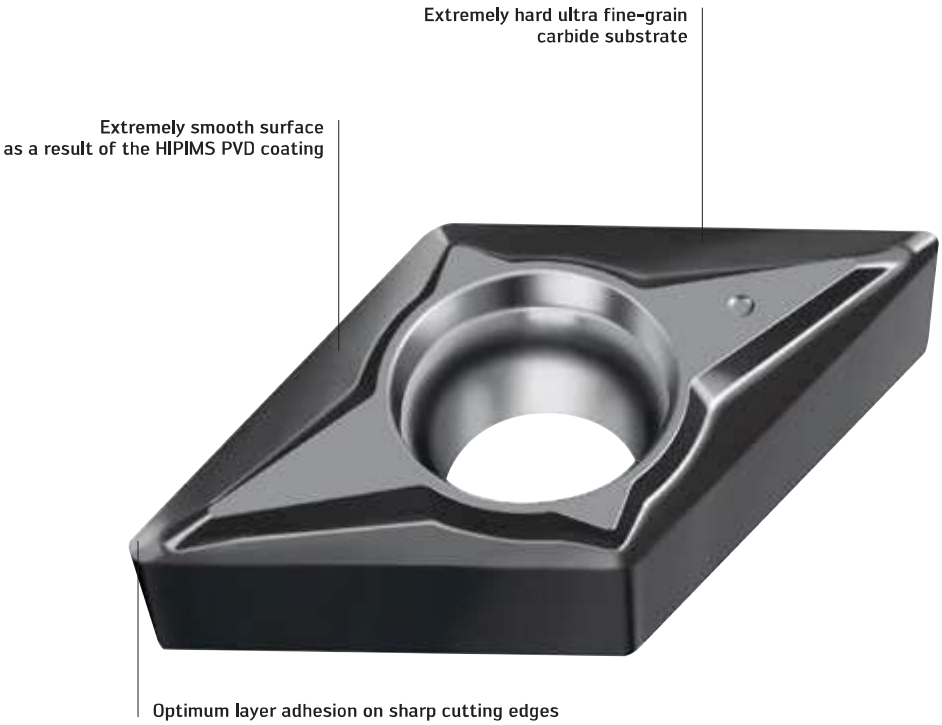
Standard PVD process:
Increased droplet formation



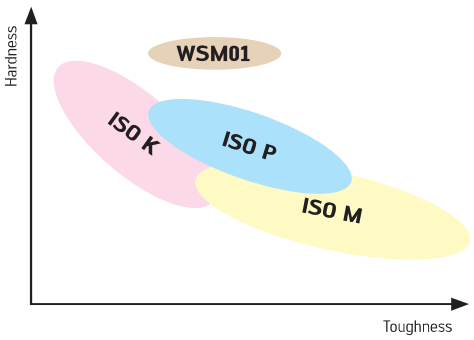
HIPIMS PVD process (WNN10):
Extremely smooth surface

HIPIMS surface and structure of a hair as a direct comparison





CARBIDE COMPARISON – WSM01 GRADE:



The new WSM01 grade is harder than existing carbide substrates with increased toughness at the same time.

Grade: WSM01

Fig.: DCGT – FM2 WSM01

BENEFITS FOR YOU

- Maximum tool life for high-strength materials
- Optimum surface qualities thanks to HIPIMS coating
- High-quality workpieces over a long tool life

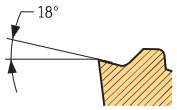
Perfect performance thanks to the new HIPIMS grade.

NEW

THE GEOMETRIES

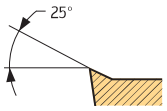
FN2 – Positive indexable inserts for finishing ISO N:
- Finishing insert with circumference fully ground
- For low cutting forces
- Polished rake face
- For long, small-diameter shafts with a tendency to vibrate

Main cutting edge



MN2 – Positive indexable inserts for medium machining of ISO N:
- Can be used universally for non-ferrous metal
- Sharp cutting edge with circumference fully ground
- Polished rake face
- Precision finishing on steel and stainless materials

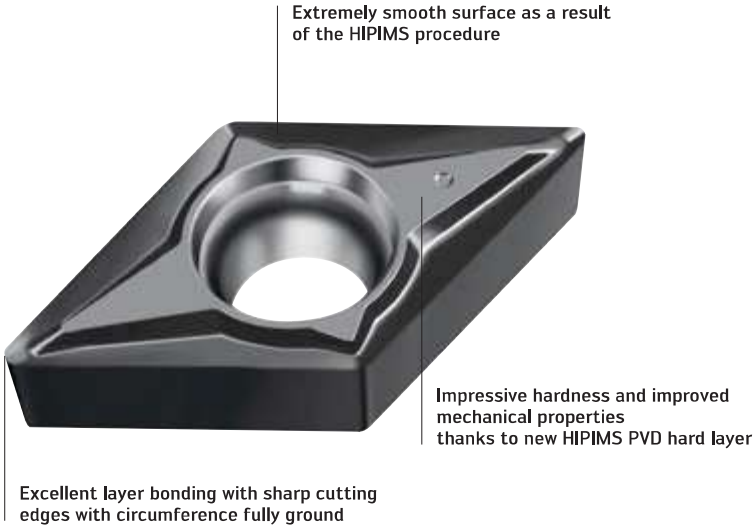
Main cutting edge



THE APPLICATION

Primary application
- Finishing and roughing of:
  ISO N alloys
  Aluminium-based alloys (e.g. 3.2382, AlSi10Mg(Fe))
  Copper-based alloys (e.g. 2.0265, CuZn30)
  Magnesium-based alloys (e.g. 3.5200, MgMn2)

Secondary application
- Fine finishing of small components made from:
  ISO P (steel)
  ISO M (stainless steels)
  ISO S (high-temperature alloys)
- Finishing and roughing of:
  ISO O (thermosets and thermoplastics)



Grade: WNN10

Fig.: FN2 geometry

BENEFITS FOR YOU

- Excellent surface quality and dimensional accuracy
- High process reliability thanks to the new WNN10 grade
- No layer flaking and even wear due to excellent layer bonding
- Longer tool life on materials with a tendency to stick (adhesion) thanks to improved surface roughness