

„ultrafine“

Smooth and dense PVD arc coatings from eifeler

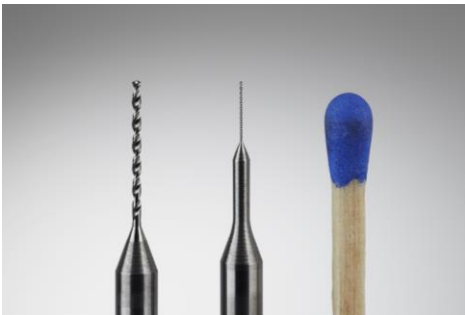
„ultrafine“ is our label for a line of coatings, which offers the deciding benefit, if smooth and hard PVD arc coatings with a very good adhesion are needed .

Smooth is easy! But smooth, well adhesive, hard and economical? This is a challenge. Our SPCS-technology is the solution. SPCS stands for „**strongly poisoned cathode surface**“ and describes our special PVD arc deposition technology, leading to outstanding coating properties by an innovative control mechanism of the process gases.

Several serial applications are already established for: TiN-ultrafine, TiCN-ultrafine. SISTRAL[®]-ultrafine will shortly follow.

These smooth and defect poor coatings are characterised by a very good adhesion and a high hardness. This gives a benefit for applications like e.g.: cutting, micro cutting, surgical instruments and plastic moulding.

„**ultrafine**“: smooth and brilliant PVD arc coatings – even without post finish operations.



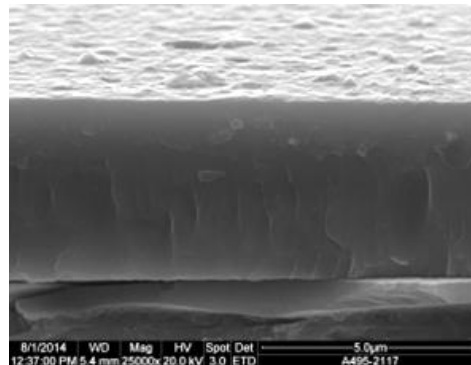
Micro cutting: dense and smooth SISTRAL[®]-ultrafine

Applications

- Cutting
- Micro cutting
- Plastic moulding
- medical components

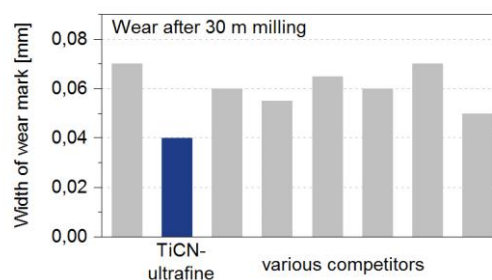


Plastic moulding: TiN-ultrafine



Break face of SISTRAL[®]-ultrafine
PVD arc coating: dense and smooth

Benchmark test TiCN-ultrafine: milling of warm working steel



Milling with HSS mill (4 flutes, Ø 10mm) in 1.2738 warm working steel (40CrNiMo 8-6-4): wear (mm) vc=60m/min, fz=0,05mm, ap=12mm, ae=2,5mm, milling distance=30m, climb milling=50%

ultrafine