

Signature Coating Omnis

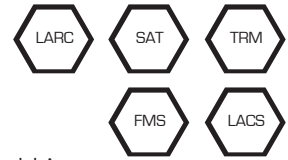
Universal high-performance AlCrN-MB coating

Omnis is a universal high-quality coating developed for a wide range of applications for wet and dry machining:

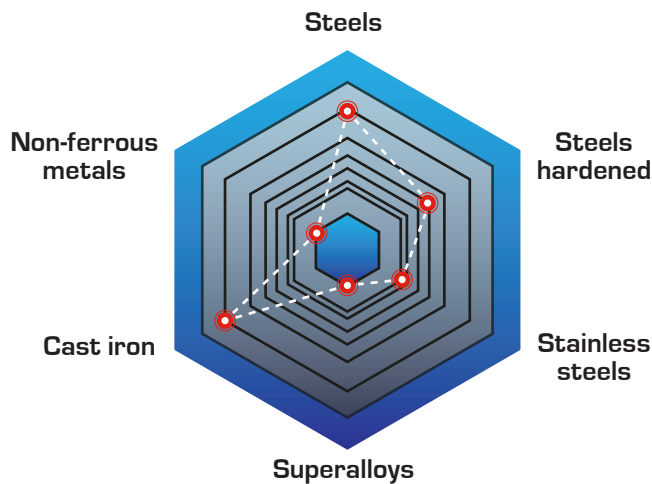
- Optimized coating properties (hardness, modulus, morphology) with advanced plasma parameters
- Higher productivity and deposition rate through increased process performance
- Advanced BIAS strategy for optimized residual stress distribution
- Use of multi-alloyed targets for maximum productivity

Highlights:

- Universal applicability e.g., for roughing, skiving, hobbing, finishing, forming, micro tools
- Omnis also works in applications typically covered by AlTiN and AlCrSiN coatings
- Superior and predictable wear behavior
- Fast and economical with very short batch times



Characteristics in cutting:

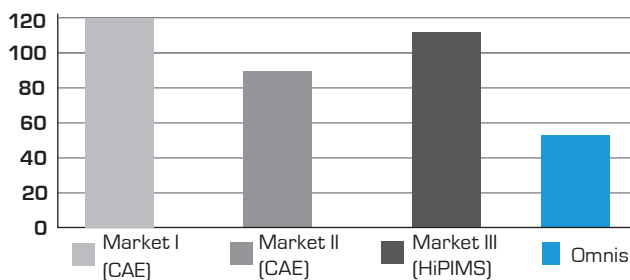


Specifications

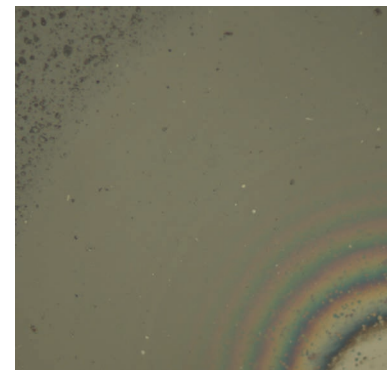
Color	grey
Nano-hardness [GPa]	33–35
Coefficient of friction [μ]	0.5
PoD (at RT, 50% humidity)	
Coating thickness [μm]	1–5
Max. service temperature [°C]	1,100
Coating temperature [°C]	480
111 G3	Al, Cr
111 TRM	AlCr35, Cr
411 G3	AlCr35, Cr, AlCr35
411 G3 SCIL/FMS	LGD, --, AlCr35 FMS
411 G3 LACS	-- Cr, AlCr35 FMS
1011 SAT	Cr, AlCr36, AlCr36, AlCr36

Milling in tool steel

Wear Vb [μm] after 90 m



Test: side milling, passing, down-cut
 Workpiece material: 1.2312 / P20 / SKT3 30-32 HRC
 Tool: SC endmill, 4 flute, Ø 8
 Par: vc = 170 m/min, fz = 0.05 mm/tap = 8.0 mm, ae = 3.0 mm
 Cooling: dry - air



Calo: Omnis