

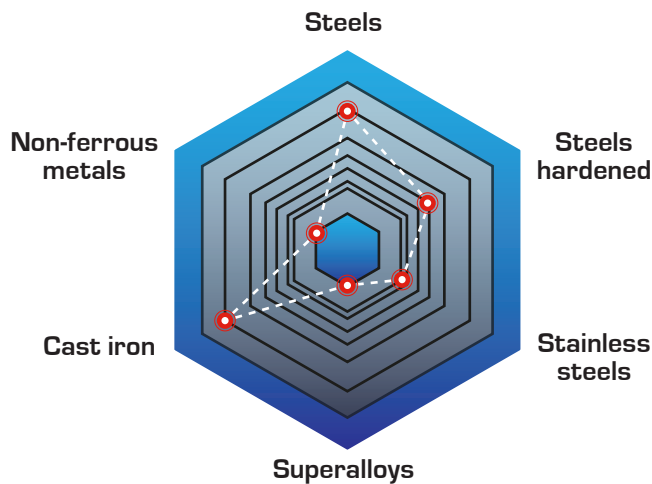
# Signature Coating Omnis

## 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:

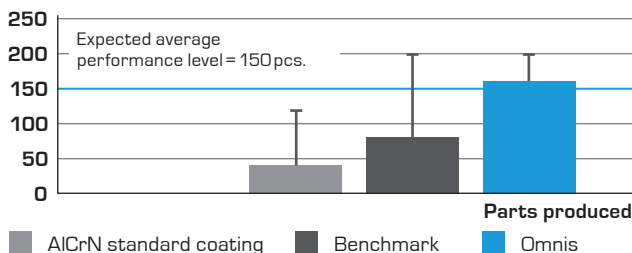
- Optimized coating properties (hardness, modulus, morphology) with advanced plasma parameters
- Higher productivity and deposition rate through increased process performance
- Advanced BIAS strategy for optimized residual stress distribution
- Use of multi-alloyed targets for maximum productivity

Characteristics in cutting:



With Omnis from PLATIT, variance between the tests is reduced:

Coating performance



Tool: Shaper cutter, Coating thickness: 3.5µm  
 Workpiece material: 1.7131; 33 HRC  
 Wet machining  
 Source: Customer in Germany

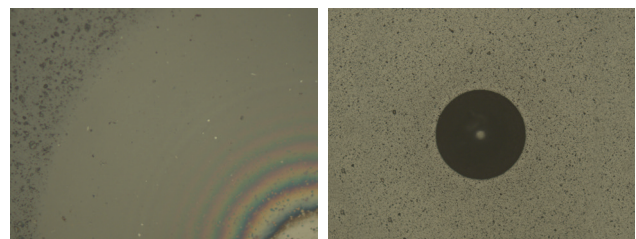
Highlights:

- 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 extremely short batch times, e.g., for 2.0 µm on endmill (3-fold rotation):
  - 4 h with Pi111 PLUS G3
  - 4–5 h with Pi411 PLUS ECO
  - 6–7 h with PL1011 G4
 or 4.0 µm on hob (2-fold rotation):
  - 5–6 h with Pi111 PLUS G3
  - 5–7 h with Pi411 PLUS ECO
  - 7–8 h with PL1011 G4

Average cycle times in an ongoing production with max. number of cathodes in use.

### Specifications

Color	grey / anthracite
Nano-hardness [GPa]	33–35
Coefficient of friction [µ]	0.5
PoD (at RT, 50% humidity)	
Coating thickness [µm]	0.3–6.0
Max. service temperature [°C]	1,100
Coating temperature [°C]	480
111 PLUS G3	(Al, Cr)
Pi411 PLUS ECO	(Al, AlCr30, Cr)
Pi411 PLUS ECO	(AlCr35, AlCr35, AlCr35)
1011 G4	(-, AlCr36, AlCr36, AlCr36)



Omnis