

# Signature Coating nACRo

## Nanocomposite for non-ferrous materials

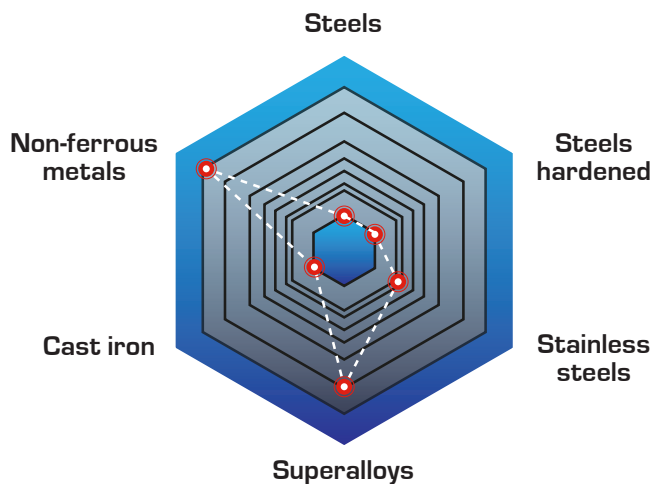


nACRo is PLATIT's nanocrystalline nanocomposite. Based on CrN adhesion layer, it has a AlCrN microcrystalline core layer for toughness and a AlCrSiN top layer which guarantees thermal stability and wear resistance. nACRo can also be deposited on sharp cutting edges for machining wood, aluminum alloy with Si content > 12% and titanium alloys such as TiAl6V4. Furthermore, nACRo can be used for aluminum injection molding.

### Highlights:

- High resistance against temperature changes, oxidation and abrasive wear
- Specialist for machining abrasive aluminum alloys
- Usage also in chipless forming

### Characteristics in cutting:

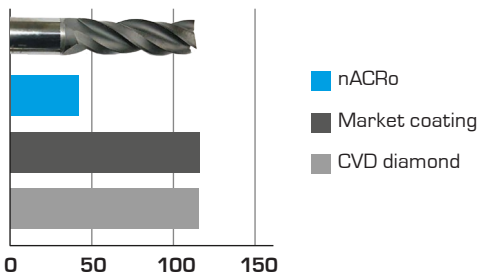


### Specifications

Color	grey
Nano-hardness [GPa]	39–41
Coefficient of friction [μ] PoD (at RT, 50% humidity)	0.5
Coating thickness [μm]	1–4
Max. service temperature [°C]	1,100
Coating temperature [°C]	450–500
111 G3	AlSi12, Cr
411 G3	Ti, AlSi18, Cr

### Milling in abrasive aluminum alloy:

Flank wear [μm]



Tool: solid carbide endmill; D8; z=3; cutting length = 25 mm  
 Workpiece material: EN AC 4700= <3.2583> AlSi12Cu  
 Coolant: emulsion  
 vc = 250 mm/min; n = rpm; ap = 5 mm; ae = 1 mm; fz = 0.16 mm/z  
 Source: GFE Schmalkalden



Calo: nACRo