Signature Coating nACo

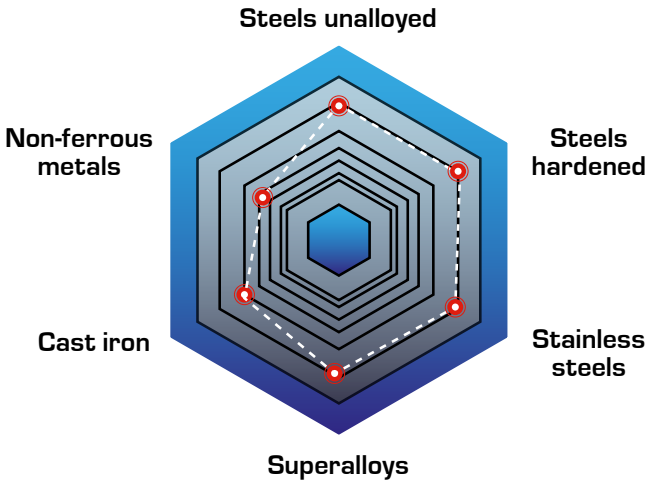
Universal nanocomposite for milling and drilling C-steels

nACo is one of PLATIT's best-known coating brands. It has proven itself on the market for over 20 years. nACo is an AlTiSi-based nanocomposite coating and performs best in the field of milling and drilling C-steels. The use of nACo provides excellent adhesion and good performance even for more unusual applications such as milling with coated ceramic tools and CBN tools.

Highlights:

- Nanocomposite with Si content
- High temperature stability
- Good hardness
- Reduces adhesion between cutting-edges and workpiece
- Versatile application possibilities

Characteristics in cutting:

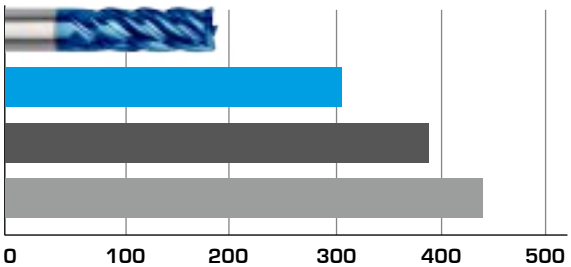


Specifications

Color	blue violet
Nano-hardness [GPa]	39–41
Coefficient of friction [µ] PoD (at RT, 50 % humidity)	0.4
Coating thickness [µm]	1–4
Max. service temperature [°C]	1200
Coating temperature [°C]	400–500
111 PLUS G3	(AlSi12, Ti)
411 PLUS ECO	(Ti, AlSi18, -)
411 PLUS TURBO	(Ti, AlSi18, -, AlTi33)
1011 G4	(Ti, AlTi40, AlTiSi30-10, AlTi40)
1511	(Ti, Al, TiSi20, AlTi33, AlTi33)

Milling in SUS316 with solid carbide end mill D4:

Wear Vb [µm] after 480 milling operations



nACo
Market coating 1
Market coating 2

Tool: solid carbide end mill; D4; z = 4; cutting length = 6 mm
Workpiece material: SUS316
Cooling with emulsion; ap = 0.1 mm; ae = 4 mm; vc = 100 m / min; n = 8000 rpm
fz = 0.0625 mm/z; f = 0.2500 mm/rot; vf = 2000 mm / min
Source: Tool manufacturer

Calo 3 layers
AlTi(Si)N is deposited on a TiN adhesion layer