

Signature Coating PSiX

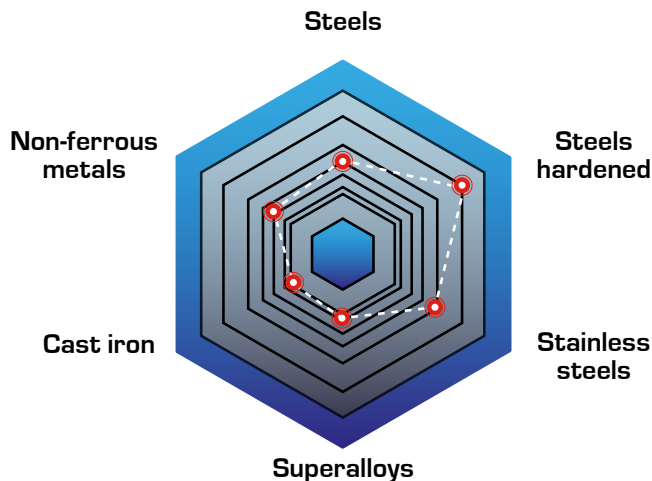
Universal hard machining coating

PSiX is a new PLATIT nanocomposite coating with a super-hard top layer. PSiX is based on TiXCo3 but has a silicon-free AlTiN base. Therefore, the aluminum content of PSiX is higher, which increases the coating's thermal stability. The coating is temperature optimized and therefore excellent for hard machining processes like finishing and roughing.

Highlights:

- Thermal stability
- Optimized service temperature
- Low coating residual stress

Charakteristics in cutting:

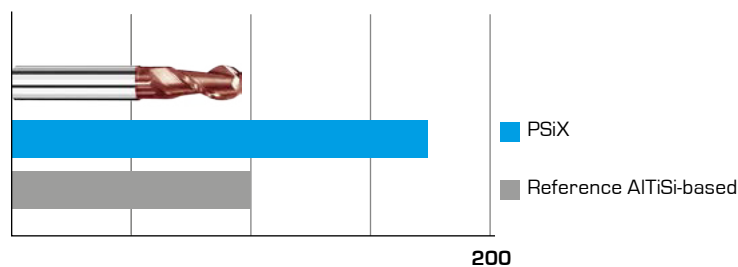


Specifications

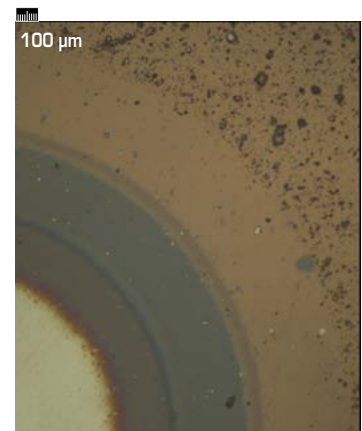
Color	red brown
Nano-hardness [GPa]	42–44
Coefficient of friction [μ] PoD (at RT, 50% humidity)	0.4
Coating thickness [μm]	1–4
Max. service temperature [°C]	1,100
Coating temperature [°C]	450–500
411 PLUS ECO	(Ti, Al, TiSi20)
1011 G4	(TiSi20, AlTi40, TiSi25, AlTi40)

Ball nose end mill in 61 HRC:

Lifetime in % at VBmax = 200 m



Tool: ball nose end mill; D10
 Workpiece material: 1.2379; 61 HRC
 $a_p = 0.2 \text{ mm}$; $a_e = 0.5 \text{ mm}$; $v_c = 182 \text{ m/min}$; $f_z = 0.14 \text{ mm}$
 Source: GFE, Germany



Calo 3 layers

Optional TiN adhesion layer →
 AlTiN for reducing coating residual stress →
 AlTiN for high hardness →
 TiSiN nanocomposite top layer