## Signature Coating TiBor

## LACS ${ }^{\circledR}$ coating for aluminum \& titanium alloy machining

TiBor is one of the most efficient PLATIT LACS ${ }^{\circledR}$ coatings. The patented hybrid process of LARC ${ }^{\circledR}$ and central SPUTTERING SCIL® achieves a droplet-free surface which avoids built-up edges. Thus, the cutting edge will be sharp. TiBor performs very well in milling, drilling and reaming of aluminum, titanium and other non-ferrous metals like copper or brass.

## Characteristics in cutting:



Superalloys

Highlights:

- Use for applications which favor build-up edge like Ti6AI4V (grade 5 / TC4) or aluminum
- Highly accurate coating for precise machining
- Increased wear-resistance

Specifications

| Color | satin silver |
| :--- | :--- |
| Nano-hardness [GPa] | 45 |
| Coefficient of friction <br> [ $\mu$ ] PoD (at RT, $50 \%$ <br> humidity) | 0.4 |
| Coating thickness $[\mu \mathrm{m}]$ | $1-5$ |
| Max. service <br> temperature $\left[{ }^{\circ} \mathrm{C}\right]$ | 600 |
| Coating temperature $\left[{ }^{\circ} \mathrm{C}\right]$ | $200-400$ |
| 411 PLUS LACS ${ }^{\oplus}$ | (Ti,,,-- TiB2 SCIL) |

Rough milling in Ti6AI4V (TC4):
Wear $\mathrm{Vb}[\mu \mathrm{m}]$ after 10 h


Tool: end mill
Workpiece material: Ti6Al4V (TC4)
Spindle speed: 6500 rpm
Cutting speed vc: $1800 \mathrm{~mm} / \mathrm{min} \mathrm{ap}=0.2 \mathrm{~mm} ; a e=3.6 \mathrm{~mm}$
Source: Chinese tool manufacturer

