



**SINTAL**  
**AITiSiN**

# SINTAL



**Sintal is the AITiSiN coating** excellent for machining applications both with carbide tools and with cutting inserts on high strength materials, such as super alloys and alloy steel. **High surface hardness, excellent wear resistance and high working temperature** make Sintal Lafer the top solution for the most heavy and demanding working conditions. Maximum working temperature 1100°C.

## MAIN APPLICATION

- Milling of alloy and hardened steels, deep drilling
- Turning and milling of superalloys (Inconel, Incoloy, Stellite)

## COATING PROPERTIES

### VISUAL FEATURES

Surface



### Values

### Measurement parameters of color

According to ISO1164-4

**52 ÷ 57**

L\* Brightness

**6 ÷ 9**

a\* Color coordinate

**6 ÷ 9**

b\* Color coordinate

### NOTES:

Non-functional requirement, indicative values

### PHYSICAL FEATURES

#### Measure

#### Values

#### Measurement

Coating thickness*	2 ÷ 4 µm	Calotest on sample
Coating hardness***	3100 ± 200 HV	Nanoindentation 20mN/20s
Roughness Ra**	0,15 ÷ 0,20 µm	From sample with Ra < 0,03µm
Coefficient of friction**	0,7 ÷ 0,8	Pin on disk, dry, against Al <sub>2</sub> O <sub>3</sub>

### NOTES:

\* depends on the application.

\*\* depends on the test conditions.

### TECHNOLOGICAL FEATURES

Coating technology	Arc
Chemical composition	AlTiSiN
Structure	Multilayer
Coating temperature	450°C
Maximum working temperature	1100°C
Biocompatibility	-
Food compatibility	-