



HYPERLOX

AITiN

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Hyperlox is the AITiN coating for cutting applications with **very low internal stress**. This coating is performed with **magnetron sputtering technology**, designed to achieve **high adhesion** while **maintaining high hardness values** as well as **excellent resistance to oxidation at high temperatures**. The deposition technology also guarantees the absence of droplets and optimum coating roughness.

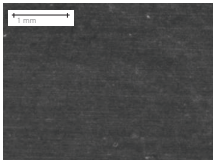
MAIN APPLICATION

- Milling and drilling of hardened steel
- Cutting of titanium and hardened steel
- Micro tools for drilling and milling
- Medical micro tools

COATING PROPERTIES

VISUAL FEATURES

Surface



Values Measurement parameters of color
 According to ISO11664-4

40 ± 50	L* Brightness
0 ± 3	a* Color coordinate
-3 ± 0	b* Color coordinate

NOTES:
 Non-functional requirement, indicative values

PHYSICAL FEATURES

Measure	Values	Measurement
Coating thickness*	1 ± 7 μm	Calotest on sample
Coating hardness***	2600 ± 200 HV	Nanoindentation 20mN/20s
Roughness Ra**	0,03 ± 0,08 μm	From sample with Ra < 0,03μm
Coefficient of friction**	0,6 ± 1,0	Pin on disk, dry, against Al ₂ O ₃

NOTES:

- * depends on the application.
 ** depends on the test conditions.

TECHNOLOGICAL FEATURES

Coating technology	Magnetron sputtering
Chemical composition	AITiN
Structure	Single layer
Coating temperature	450°C
Maximum working temperature	900°C
Biocompatibility	Non-cytotoxic according to ISO10993-5:2009
Food compatibility	-