



CORAL HiPIMS

AlTiSiN

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Coral is the new **AITISIN** coating, deposited with HiPIMS technology and developed to improve the carbide cutting tools performances when machining of **medium and high strength steels**. The HiPIMS technology ensures excellent coating roughness, high toughness, hardness and wear resistance which allow to reduce machining time and to obtain better surface finish. The HiPIMS deposition technology also ensures an extremely **low surface roughness**.

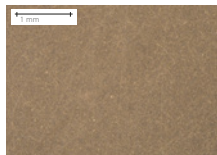
MAIN APPLICATION

- Machining of medium and high strength steels with carbide cutting tools
- Microtools for drilling and milling

COATING PROPERTIES

VISUAL FEATURES

Surface



Values	Measurement parameters of color According to ISO11664-4
49 - 51	L* Brightness
6,5 - 8,5	a* Color coordinate
6 - 8	b* Color coordinate

NOTES:

Non-functional requirement, indicative values

PHYSICAL FEATURES

Measure	Values	Measurement
Coating thickness*	1,5 - 4 µm	Calotest on sample
Coating hardness**	3100 ± 200 HV	Nanoindentation 20mN/20s
Roughness Ra**	0,03 - 0,08 µm	From sample with Ra < 0,03 µm
Coefficient of friction	0,5 - 0,6	Pin on disk, dry, against Al ₂ O ₃

NOTES:

* depends on the application.

** depends on the test conditions.

TECHNOLOGICAL FEATURES

Coating technology	HiPIMS
Chemical composition	AITISIN
Structure	Multilayer
Coating temperature	450°C
Maximum working temperature	1100°C