ta-C LAFER

ta-C

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Azienda con sistema di gestione qualità certificato da
TÜV Italia Srl secondo la norma ISO9001 e da IMQ SpA
secondo la norma ISO13485.

Lafer
RIVESTIMENTI PVD-CVD-DLC

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The **ta-C LAFER** coating (Tetrahedral Amorphous Carbon) has been designed to combine the very high hardness properties of Carbon, in its diamond-like form, with the low coefficient of friction and excellent wear resistance typical of the traditional tribological PVD coatings.
The ta-C LAFER coating is therefore a high performance solution for cutting tools for machining materials such as aluminium alloys with high silicon content and plastics such as PC, composite materials, carbon fiber and wood.
Ta-C LAFER is also suitable for many Racing and Automotive applications, where the mechanical loads are more than extreme.

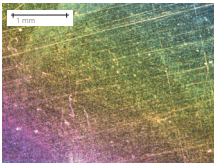
MAIN APPLICATION

- HM tools and inserts for woodworking
- HM tools and inserts for processing plastics
- Engine components for racing and automotive applications with extreme mechanical loads

COATING PROPERTIES

VISUAL FEATURES

Surface



Values	Measurement parameters of color According to ISO11664-4
Multicolor	**L*** Brightness
Multicolor	**a*** Color coordinate
Multicolor	**b*** Color coordinate

NOTES:
Non-functional requirement, indicative values

PHYSICAL FEATURES

Measure	Values	Measurement
Coating thickness*	1 ÷ 3 µm	Calotest on sample
Coating hardness**	4000 ÷ 7000HV	Nanoindentation 6mN/20s
Roughness Ra**	0,10 ÷ 0,15 µm	From sample with Ra < 0,03µm
Coefficient of friction**	0,05 ÷ 0,1	Pin on disk, dry, against Al_2O_3

NOTES:
* depends on the application.
** depends on the test conditions.

TECHNOLOGICAL FEATURES

Coating technology	Arc
Chemical composition	ta-C
Structure	Multilayer
Coating temperature	220°C
Maximum working temperature	380°C