DUPLEX DURMATIC

Titanium based

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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.

RIVESTIMENTI PVD-CVD-DLC

Doc. SpT_DUPLEX DURMATIC_ENG
Rev. 0 date 02/08/2021

DUPLEX DURMATIC

Duplex Durmatic is the innovative Lafer coating for **cold forming of stainless steel sheet, high-resistance steel sheet and high-thickness Fe sheet**.
Duplex Durmatic is the evolution of Duplex Red Speed: it has excellent **anti-sticking properties, high wear resistance and reduced friction coefficient**.
This process consists of **two phases in a single coating batch**: a first substrate hardening process of plasma nitriding under vacuum, which provides the best hardness gradient, and then the Durmatic coating deposition. This technology guarantees **a strong increase in the mould productivity**, avoiding the generation of the white layer and the brittleness of the edges.

MAIN APPLICATION

- Cold forming of stainless steel sheet and high resistance sheet
- Cold forming of sheet with high content of chrome and nickel
- Cold forming of high thickness ferrous sheet
- Blanking of stainless steel sheet and ferrous sheet

COATING PROPERTIES

VISUAL FEATURES

Surface

Values	Measurement parameters of color According to ISO11664-4
56 ÷ 59	**L*** Brightness
1,5 ÷ 3,5	**a*** Color coordinate
-3 ÷ 0	**b*** Color coordinate

NOTES:
Non-functional requirement, indicative values

PHYSICAL FEATURES

Measure	Values	Measurement
Nitriding thickness***	50 ÷ 80 µm	Metallography
Coating thickness*	2,5 ÷ 5,5 µm	Calotest on sample
Coating hardness***	3500 ± 200 HV	Nanoindentation 20mN/20s
Roughness Ra**	0,08 ÷ 0,11 µm	From sample with Ra < 0,03µm
Coefficient of friction**	0,2 ÷ 0,25	Pin on disk, dry, against Al_2O_3

NOTES:
* depends on the application.
** depends on the test conditions.
*** depends on the substrate steel, without white layer.

TECHNOLOGICAL FEATURES

Coating technology	Arc
Chemical composition	Titanium based
Structure	Plasma nitriding + Multilayer
Coating temperature	450°C
Maximum working temperature	450°C
Biocompatibility	-
Food compatibility	-