



NEW CHROME

CrN

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Newchrome is an advanced coating based on **Chromium Nitride Crn produced with an innovative Lafer technology**. It represents the ideal solution in the replacement of Galvanic Chromium as Lafer highlighted with research in the Reach project. It is easy to polish and for this reason **it is used in transparent plastic molding**. Due to its food compatibility features it finds applications in the food and medical field.

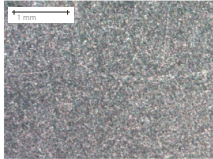
MAIN APPLICATION

- Substitute for galvanic chromium
- Automatic machine components and components
- Food and Medical
- Engine components for racing and automotive applications
- Transparent plastic moulding

COATING PROPERTIES

VISUAL FEATURES

Surface



Values	Measurement parameters of color According to ISO11664-4
60 ÷ 65	L* Brightness
0 ÷ 1	a* Color coordinate
1,5 ÷ 2,5	b* Color coordinate

NOTES:
 Non-functional requirement, indicative values

PHYSICAL FEATURES

Measure	Values	Measurement
Coating thickness*	2 ÷ 6 µm	Calotest on sample
Coating hardness***	1800 ± 200 HV	Nanoindentation 20mN/20s
Roughness Ra**	0,05 ÷ 0,10 µm	From sample with Ra < 0,03µm
Coefficient of friction**	0,3 ÷ 0,4	Pin on disk, dry, against Al ₂ O ₃

NOTES:

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

TECHNOLOGICAL FEATURES

Coating technology	Arc
Chemical composition	CrN
Structure	Single layer
Coating temperature	200 ÷ 450°C (depending on the application)
Maximum working temperature	650°C
Biocompatibility	-
Food compatibility	Complies with EC Regulation No 1935/2004