

NIGLOSS800

BRIGHT NICKEL ELECTROLYTIC PROCESS

PRODUCT DESCRIPTION

- Excellent distribution of the shiny and levelling power at low density current areas also.
- Good tolerance with respect to any excess of primary additive.
- Possibility to treat items of complicated designs and to get uniform deposits.
- Possibility to charge racks with a high number of items obtaining homogeneous Ni finishing.

NIGLOSS800 is a bright, last generation electro-deposition Nickel process to produce brilliant, mirror bright and highly levelled deposits with excellent mechanical properties. Its ductile, with optimal throwing power, used for baths with cathodic mechanical movement of the pieces or with air agitation.

NIGLOSS800 is ideal on automatic plants with racks of large dimensions.

The kind of additives system allows for excellent results on brightness and leveling without compromising chromium receptivity and avoiding low current density dark areas

SOLUTION PREPARATION

To prepare the ready- to-use solution add:

Nickel Sulfate	220 – 280 g/l
Nickel Chloride	60 – 80 g/l
Boric Acid	40 – 45 g/l
NIGLOSS808AD	15 – 20 g/l
NIGLOSS805AD	8 – 10 g/l
NIGLOSS801NI	0.5 ml/l
NIGLOSS881WA (for insufflation plants only)	2 – 3 ml/l
NIGLOSS880WA (for movement plants only)	3 – 5 ml/l

PRODUCT USAGE

Cathodic Current density	3 – 6 A/dm ²
Anodic Current density	Until 3 A/dm ²
Temperature	55 – 60°C
pH	4.2 – 4.5
Cathodic movement speed	2 – 4 m/minutes
Anodes	Electrolytic Nickel 99%
Anodes bags	Made in MERAKLON
Filtration	Continuous

BATH MAINTENANCE

Add every 10000 Ah:

NIGLOSS807ST:	0,5 – 1 liter
NIGLOSS801NI:	3 – 4 liters

ANALYTICAL METHODS

The analytical methods are available on request to our laboratories.

EQUIPMENT
ANODES

Electrolytic Nickel of 99,9% purity.

AGITATION

For cathodic mono-dimensional agitation, 2-4 m/min are required.

For air agitation: 20 – 30 m³ for every m² of bath surface.

FILTRATION

A continue 3-5 turn-over/hour filtration is recommended.

RECTIFIERS

Use 12 Volt rectifiers with less than 5% ripple.

HEATERS

Immersion heaters made of ceramic, teflon or titanium heating system

The heating capacity must be adequate to allow a temperature range of ± 5 °C

RUEL OF EACH ADDITIVE
NIGLOSS808AD

Its correct concentration grants ductile and light deposits and high throwing power. Operating window is quite wide and small excess of this additive does not create plating problems. Anyway, **NIGLOSS808AD** is analyzable and easily maintained.

NIGLOSS805AD

Additive with auxiliary brightener function; its concentration might be adjusted according to specific finishing needs. Once its concentration has been defined in case of not sufficient presence into the working solution there will be a low performance of the primary brightener and, as consequence, scares levelling and brightness especially in low current density zones/areas. It is analyzable and easily maintained into the optimal range.

NIGLOSS801NI

This is the primary brightener additive. Its concentration must be carefully monitored to maintain the best brightness and levelling performance.

Being the main responsible of brightness and levelling a low concentration will reflect a not sufficient mirror-effect for the generated electrodeposit; vice versa a higher concentration will cause poor uniform deposits with too much difference of mirror effect between high and low current density areas respectively.

NIGLOSS881WA

Anti-pitting agent for air agitation tanks. It lowers the surface tension and facilitates the release of hydrogen bubbles from the cathode.

Lower concentrations may determine pitting on the treated surfaces.

NIGLOSS880WA

Anti-pitting agent for cathodic movement. It lowers the surface tension and facilitates release of hydrogen bubbles from the cathode.

Lower concentrations may determine pitting on the treated surfaces.

SAFETY INFORMATION

Classification and designation are noted in the Material Safety Data Sheet (according to the European legislation). The safety instructions and the instructions for the environmental protection have to be followed in order to avoid hazards for people and environment. Please consider the explicit details in our Material Safety Data Sheets.

DISCLAIMER

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