



Version: 20 July 2017

# ARGUNA<sup>®</sup> 630

## FINE SILVER ELECTROLYTE



### For Deposition of Bright Silver Layers

ARGUNA<sup>®</sup> 630 is an alkaline-cyanide silver electrolyte for (electro) technical and decorative applications. Depending on the operating parameters chosen, the electrolyte can be used in continuous lines as well as for rack and barrel plating.

Since thick and bright silver layers can be deposited from ARGUNA<sup>®</sup> 630, it is suitable for decorative purposes. In the technical field, the main focus clearly is on the very good electrical properties and the excellent bonding and soldering characteristics of the silver layers.

Due to a reflection density of up to 1.5 GAM and the high temperature resistance of the coatings, the electrolyte can also be used for final finishes on LEDs.



### Advantages

- For (electro)technical and decorative applications
- Suitable for rack and barrel plating
- Bright and thick layers can be deposited
- Operating temperature up to 40 °C possible
- Transparent colour of the electrolyte
- Can be used in continuous lines using flow or spray technologies for either all-over or selective silver plating of strip materials
- Excellent soldering and bonding properties
- High temperature resistance of the layers
- Reflection density of the coatings of up to 1.5 GAM possible
- Can be used as LED final finish

### Applications

- Contact surfaces of electrical and electronic components
- Coated wires as high-quality conducting material for medical technology and aerospace industry
- LED final finish

# ARGUNA® 630

## FINE SILVER ELECTROLYTE



### TECHNICAL SPECIFICATIONS

Electrolyte characteristics	
Electrolyte type	Alkaline-cyanide
Metal content	30 - 60 g/l Ag
NaCN content	130 (110 - 140) g/l
pH value	12.5
Operating temperature	25 - 40 °C
Current density range	
Rack operation	0.5 - 5 A/dm <sup>2</sup>
Barrel operation	0.5 - 2 A/dm <sup>2</sup>
Continuous lines	10 - 40 A/dm <sup>2</sup>
Plating speed	
Rack operation at 1 A/dm <sup>2</sup>	1 µm in 1.5 min
Rack operation at 5 A/dm <sup>2</sup>	1 µm in 0.3 min
Continuous lines at 20 A/dm <sup>2</sup>	13 µm in 1 min
Anode material (fine silver, as Ag granules in titanium baskets or sheets)	Pt-Ti (type PLATINODE® Pt/Ti)

Coating characteristics	
Coating	Fine silver
Purity	99.9 wt.% Ag
Colour of deposit	White
Brightness	Bright
Hardness of deposit HV 0.015 (Vickers) approx. values	100 - 130 HV as plated
Max. coating thickness	> 100 µm
Density of the coating	10.5 g/cm <sup>3</sup>

Umicore Galvanotechnik GmbH  
Klarenbergstrasse 53-79  
73525 Schwaebisch Gmuend (Germany)

Technical Support: Phone +49 7171 607-322  
Sales Department: Phone +49 7171 607-204

[www.ep.UMICORE.com](http://www.ep.UMICORE.com)

**umicore**  
Electroplating

The information and statements contained herein are based on our experience in the fields of research and applied technology and are believed to be accurate at the time of publication, but - unless agreed in writing - we make no warranty with respect thereto, including but not limited to any results to be obtained. This product information sheet in the English language prevails any translation.