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ARGUNA[®] 4500

FINE SILVER ELECTROLYTE



The New Bright Silver High-speed Electrolyte

ARGUNA[®] 4500 is a fine silver electrolyte for the fast deposition of ultra-bright coatings with excellent bonding, soldering and adhesive properties.

ARGUNA[®] 4500 is used for the selective deposition of bright silver layers in continuous lines using flow and spray technologies such as jet or spot plating modules. Applicable current density and plating speed mainly depend on the electrolyte agitation at the parts, i.e. on the flow velocity in the plant. Under optimum conditions, layers with extreme brightness and reflectance can be produced.

The electrolyte works with insoluble anodes and can be operated with very low concentrations of free cyanide.



Advantages

- High-speed electrolyte for the selective deposition of fine silver
- For continuous lines using flow or spray technologies
- Bright coatings with very good soldering and bonding properties
- Insoluble anodes
- With little free cyanide

Applications

- Contact surface for semi-conductors and electrical components
- Leadframe packaging for soldering, bonding and adhesive applications

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TECHNICAL SPECIFICATIONS

Electrolyte characteristics	
Electrolyte type	Weakly alkaline, low amount of free cyanide
Metal content	90 (60 - 120) g/l Ag
pH value	9 (8.5 - 11)
Operating temperature	60 (50 - 70) °C
Current density range	50 - 250 A/dm ²
Plating speed	up to 2.6 µm/s
Anode material	Pt-Ti (type PLATINODE® Pt/Ti)
Electrical conductivity	>50 m*(Ω*mm ²) ⁻¹

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

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