Au Fe In

Version: 20 April 2017

umicore Electroplating

AURUNA® 215

GOLD IRON INDIUM ELECTROLYTE

Gold Alloy Electrolyte Free of Nickel and Cobalt

AURUNA® 215 is a colour gold alloy electrolyte for decorative applications, preferably for parts coming into contact with the skin such as jewellery and watches. The essential advantage of the coatings is their freedom from nickel and cobalt, excluding skin allergies caused by these metals.

The weakly acidic gold electrolyte is easy to operate and suitable for rack and barrel, it works very colour-constant. Across a wide operating range, the coating colour (1N - 2N) is independent of pH-value and current density. By adding indium, a uniform colour is achieved.

Advantages

- Weakly acidic colour gold electrolyte
- Pale to light yellow coatings
- Colour-constant across a wide operating range
- Uniform colour
- For decorative applications
- Non-allergenic since free of nickel and cobalt
- The coatings are RoHS compliant
- Suitable for rack and barrel

Applications

- Jewellery
- Watches
- Spectacle frames
- Writing implements
- Accessories

AURUNA® 215

GOLD IRON INDIUM ELECTROLYTE

TECHNICAL SPECIFICATIONS

Electrolyte characteristics	
Electrolyte type	Weakly acidic
Metal content	2.5 (2.0 - 3.0) g/l Au 0.5 (0.4 - 0.6) g/l Fe 1.0 (0.8 - 1.2) g/l In
pH value	4.0 (3.8 - 4.5)
Operating temperature	35 (30 - 35) °C
Current density range	1.5 (0.5 - 2.0) A/dm²
Plating speed	Approx. 0.14 µm/ min at 1.5 A/dm²
Anode material	Pt-Ti, MMO (type PLATINODE® 147)

Coating characteristics	
Coating	Gold-iron-indium
Alloy composition	98.5 weight % Au 1.4 weight % Fe 0.05 weight % In
Colour of deposit	Approx. 1N - 2N
Brightness	Bright
Hardness of deposit HV 0.015 (Vickers) approx. values	220 HV
Max. coating thickness	3 µm
Density of the coating	Approx. 17.5 g/cm³

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

Technical Support: Phone +49 7171 607-305
Sales Department: Phone +49 7171 607-204

www.ep.umicore.com

umicore Electroplating