

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/cm ³ |

YOUR CONTACT

Do you have a specific question or would you like a no-obligation quote calculation? Our specialist will be happy to help you with any technical questions you might have.



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