

# Umicore's Auruna 5750 High-Quality Gold-Silver Alloy for Cost-Efficient Coatings

With Auruna 5750, the business unit Metal Deposition Solutions (MDS) of the Umicore Group now offers an innovative gold-silver electrolyte that appears to be unrivaled in terms of quality in electroplating technology.

Its alloy properties read like a specification sheet from the industry for high-quality and functional gold plating. At the same time, the gold content of only 50 % makes Auruna 5750 an extremely cost-efficient solution.

In recent months, the price of gold has risen sharply. This drastic price increase has far-reaching consequences for all products with gold plating, regardless of whether they are decorative or technical applications. Such products are becoming significantly more expensive to manufacture and are increasingly unattractive to many end customers due to the associated cost increases. Umicore MDS has responded to this challenge by developing Auruna 5750, a gold-silver electrolyte that enables 12-carat intermediate and final layers. These layers contain equal amounts of both precious metals. Due to the different densities of the two precious metals, this allows savings of around 60% in precious metal costs compared to pure gold layers.

Characteristics

Auruna 5750 not only impresses with its cost efficiency. The deposited layers also impress with their ductility, which is atypical for hard gold (220 HV hardness according to Vickers), and their seemingly contradictory, yet extraordinary, abrasion resistance. This is confirmed in the Bosch-Weinmann



Stegmaier



Kuhn



test, in which very low abrasion and layer removal values are achieved compared to conventional gold alloys due to the high degree of hardness and the lubricating properties of the silver. Compared to gold-iron or gold-cobalt alloys, which also lead to a gold-yellow deposition, the abrasion values of Auruna 5750 are almost halved.

Versatile Application Options

Auruna 5750 is not only the first choice for cost-optimized gold plating but also an elegant pastel gold final layer. It is also suitable for protective and color-preserving intermediate layers, such as those used in jewelry or plug contacts where a more intense gold tone is desired. The coatings are particularly flexible and resistant due to the high silver content. Even with thicker layers, the shine is completely retained.

Envir Friendly and Easy To Use

Another advantage of Auruna 5750 is its low environmental impact. The electrolyte contains no toxic heavy metals and, therefore, meets the strict technical standards of the RoHS Directive. Nevertheless, the alloy provides

reliable protection against corrosion. The uniform and stable plating also extends the service life of the plated objects.

The electrolyte is easy to handle and insensitive to metallic impurities - regardless of whether Auruna 5750 is used for rack or barrel goods. Due to the wide range of possible applications, different layer thicknesses are required. Care has therefore been taken to ensure that crack-free deposition is possible up to a thickness of 10 µm. If very thin layers are required, an even more cost-effective variant with a low gold content can be used, resulting in additional savings.

Fast Development Time

"With Auruna 5750, we are once again setting new standards in electroplating technology," says Martin Stegmaier. "The rapid development was made possible by our decades of experience with related alloys from electroforming. This established base makes Auruna 5750, with its truly outstanding characteristics, a future-proof choice for the electroplating industry."

Prototype Coating and Economic Efficiency Calculation

Auruna 5750, an innovative gold-silver electrolyte, offers an economical solution for gold plating that meets the highest demands. However, Thilo Kuhn, Director of Sales and Marketing, knows that despite its outstanding characteristics, the electrolyte may have to overcome internal hurdles with producers.

"In some cases, time-consuming qualification processes are necessary to convert production lines," Kuhn says. "That's why we offer an uncomplicated prototype coating together with an economic efficiency calculation. This allows us to eliminate any concerns about whether a conversion is worthwhile."

Visit <https://www.umicore.com/en/>

Future-proof your business!

WolfRayet Galaxy Systems: Powder Coat Metal AND Wood/MDF



With WolfRayet Gas Catalytic IR Ovens:

- Powder coat heat sensitive substrates like wood and MDF
- Powder coat metal – gel and full cure ovens

Choose WolfRayet, improve your line and benefit from:

- Quick, effective application & cure
- Operational efficiencies – no matter your business size
- Flameless technology
- Low energy usage
- No NOX

Talk to an expert to reduce costs and improve throughput

For more information on the exciting new WolfRayet systems

visit: [www.wolfrayet.com](http://www.wolfrayet.com)

or call: 940.336.1120