Issue 35/2020

umicore Electroplating

umicore goldpost

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As of this year, the Umicore Weg path now leads from the center of Schwäbisch Gmünd to Umicore Electroplating's headquarters. Essential to our success, the values of openness, innovation, respect, teamwork and commitment pave the five legs of the path.

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Imprint

Published by: Umicore Galvanotechnik GmbH, Klarenbergstrasse 53-79, D-73525 Schwaebisch Gmuend
Editorial responsibility: Umicore Galvanotechnik GmbH
Design and layout: Umicore Galvanotechnik GmbH
Text: Umicore Galvanotechnik GmbH

You can download Goldpost as a PDF file from our website www.ep.umicore.com.

Dear readers,

we invite you to use this Goldpost as an opportunity to reflect on the past year. The main focus is, of course, on our new products. Due to the limited space provided by this medium, we've decided only to offer a glimpse into these products here and to give you more detailed information on digital channels as appropriate.

It goes without saying that we'll also use this opportunity to take a look behind the curtain and provide you with some information about internal events and changes. Finally, we'll also offer you a little insight into the upcoming year in trade fairs and what you can expect from our digital communication channels.

I hope you like our new Goldpost concept as a link to our digital world. Naturally, I look forward to your feedback as always - no matter how it reaches me.

All the best,

Thomas Engert
Managing Director

Florian Dengler (2nd from left) and daughter Mara (4th from left) are pleased about a donation totaling 16,000 euros.

News from Schwaebisch Gmuend

A gesture with symbolic effect

Our staff has proven again this year that our well-known family atmosphere isn't just a marketing concept. Longstanding sales employee Florian Dengler experienced overwhelming support after he announced that his daughter Mara has been diagnosed with Angelman Syndrome - a rare and untreatable genetic illness. A willingness to help was felt from all directions, and culminated in a donation of 16,000 euros for a promising dolphin therapy for the young girl.

Umicore goes digital

The Umicore Group began its "digital workplace" concept this year in order to keep pace with the times. With programs such as Microsoft Teams, we're opting for new, digital ways of thinking. Our transition to Office365 among other things offers us the opportunity to work together in a more open and transparent way. New, more efficient work processes will be the result, and our carbon footprint can also be further reduced.

Exercise and health are top priorities

Great attention has been paid to health over the last few months. A plethora of sport courses, such as CrossFit, endurance training, Yogalates and fascia training, has been met with great enthusiasm by our staff. Perhaps that's why we managed to achieve a new employee participation record at this year's Umicore 10km run.

Another highlight: the two cooking courses that promoted healthy, simple cooking after work. Employee perks were rounded off with skin screenings, flu vaccinations and health-related talks.

Remigiusz Mazanek and Jean-Pierre Bize after successfully completing the annual Umicore 10 km run.

Four new trainees join

In September, four motivated young people began their careers with us. Aaron Wild (surface coating technician), Frederic Brenner (surface coating technician), Manuel Huttelmaier (industrial clerk) and Christoph Schilling (chemical technician) were faced with their first few intense weeks after several days at trainee camp. On the agenda was getting to know the company, our wide product range and the foundations of electrochemical electroplating.

Even after the integration phase, our training has high requirements for future skilled employees. Therefore, our experienced trainers ensure a balanced, situation-based weighting of theory and practice, always keeping an eye on interpersonal matters.

Frederic Brenner, Manuel Huttelmaier, Christoph Schilling and Aaron Wild (from left) began their training in September.

Warehouse expansion

In the summer of 2019, an outdoor storage area was added to an existing warehouse at the Schwäbisch Gmünd site. A space-saving mobile rack system was also installed in an existing warehouse. As well as improvements to occupational safety, the additional construction work also achieved the planned aim of optimizing product dispatch processes.

The expansion and warehouse optimization will allow improved product dispatches in future.

Honoring 25 years with the company

Aida Bonifacio Hamzic, Petra Mohr (both in production), Tanja Ziebart and Markus Legeler (both in sales) all joined the company in 1994. Glorious summer weather and a generous barbecue provided the perfect backdrop for this year's special celebrations for the whole team.

Aida Bonifacio Hamzic (3rd from left), Markus Legeler (4th from left), Tanja Ziebart (5th from left) and Petra Mohr (6th from left) were honored for 25 years of loyalty to Umicore Electroplating.

Moritz Frick, Volker Wohlfarth, Roman Knaus, Anika Sommer and Aron Abele (from left) have become part of the Umicore Electroplating team this year.

Our new colleagues

This year, our headquarters in Schwaebisch Gmuend welcomed five new skilled employees. The most special thing about this year's new arrivals? They're all familiar faces.

Volker Wohlfarth has returned

The best-known new arrival has to be Volker Wohlfarth. After many years of managing sales at Schlötter in China and then managing exports at Schlötter's headquarters, this 49-year-old has turned full circle and since July 2019 has been working back where he trained. His extensive knowledge, thanks in part to international MBA courses, will be used in his new role in sales for our technical application department.

Moritz Frick is also a familiar face whom we've managed to win over as an employee. He joined our analytical lab team in October.

Skilled workers from our own ranks

We make a great deal of effort in training to ensure that the company's need for skilled workers is met. With Anika Sommer (international sales), Aron Abele (accounting) and Roman Knaus (plating job shop), three trainees were seamlessly integrated as a fixed part of the company this year.

RHODUNA®-Alloy range

Dark precious metal alloy with impressive properties

RHODUNA®-Alloy Black 1 deposits a dark precious metal alloy of rhodium and ruthenium with a noble anthracite hue - without colour shift. The coatings produced are extremely resistant to abrasion and offer a price advantage of almost 50 percent.

Especially in mass production, the incredible color consistency of the sophisticated dark anthracite stands out - differences from the set black shade cannot be recognised with the naked eye. This applies whether the coating is glossy or matt.

You can find more detailed information at:
www.ep.umicore.com/rhoduna-alloy-black-1

RHODUNA®-Alloy Black 1 is probably the only alloy to combine all the properties required of a dark precious metal surface. The most important features are abrasion resistance, an attractive price and, of course, a sophisticated and adjustable shade of black are surely the most important features.

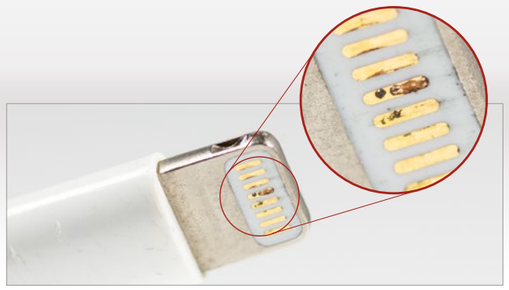
RHODUNA®-Alloy 1 offers benefits when it comes to all technical charging contacts - even in wearables such as ear buds.

RHODUNA®-Alloy 1 meets the requirements for wearables and mobile phones

Ease of use, attractive design and strong performance have always been the main arguments for buying wearables and mobile phones. Hoewever, small differences such as a long lifetime and compatibility with fast chargers are increasingly important.

These expectations cannot be fulfilled with gold-plated charging contacts & connectors (USB-C, Pogo Pin, etc.). Gold-plated contacts corrode during the charging process if they have been in contact with salt water, swimming pool water, sweat or beverages.

If the contacts are coated with RHODUNA®-Alloy 1, they are protected against corrosion. This does not affect the ability of the devices to charge quickly.



Salt water, swimming pool water, sweat and beverages mean that gold-plated contacts corrode quickly.

You can find more detailed information at:
www.ep.umicore.com/rhoduna-alloy-1-technisch

The RHODUNA®-Alloy range facilitates cost savings of almost 50% compared to pure rhodium electrolytes

RHODUNA®-Alloy Black 1 is extremely easy to use thanks to its 1:1 ratio of rhodium and ruthenium. This composition also results in attractive pricing.

Ruthenium has boasted a very stable and relatively low price trend for quite some time. The price of rhodium, however, has increased by a good 750% in three years since mid-2016. High demand has made rhodium the most expensive precious metal of them all. Thanks to the electrolyte's composition, a saving of 45% plus is realistic compared to a pure rhodium electrolyte.

More economically attractive rhodium electrolytes in the product program

As already mentioned, RHODUNA®-Alloy 1 for brilliant white layers also comes with a price benefit thanks to its composition containing rhodium and ruthenium.

You can find more detailed information at:
www.ep.umicore.com/rhoduna-alloys-economically-attractive

Our Sealing and Antitarnish processes protect technical and decorative applications alike.

Protection right from the start for high-quality final surfaces

None of our protective layers contains any environmentally harmful components such as solvents, CFCs, CHCs, hydrocarbons or chromium compounds, making them biologically harmless.

By definition, precious metals are largely resistant to corrosion in a natural environment. In daily use, however, they are exposed to environmental influences which they cannot withstand. Optical flaws or technical malfunctions are the unwanted consequences.

The perfect protective layer for your product depends on many factors in addition to your expectations. In order to do justice to these factors a single „one size fits all" proecess cannot meet your quality expectations. With currently ten different protective coating processes, our product range has a suitable solution for your individual product requirements.

Umicore Antitarnish for decorative surfaces

Umicore Antitarnish is a protective process for decorative precious metals. This absolutely transparent layer in the nanometer range protects the base material from oxidation, discoloration and mechanical stress. The colour and gloss are not affected. The coating is chemically resistant, dirt and water repellent and has a long life.

Umicore Sealing for technical surfaces

Umicore Sealing is a post-treatment process specially designed for technical precious metal surfaces. The result is a protective, transparent layer just a few nanometers thick. Depending on the application, this layer specifically prevents tarnishing, discoloration and corrosion.

For quick identification of the right product in our wide range, we have compiled the Umicore protective coatings overview. Divided into Umicore Sealing (for technical products) and Umicore Antitarnish (for decorative products), all our electrolytes are compared - so you can find the right electrolyte within a few minutes.

You can find more detailed information at:
www.ep.umicore.com/protective-layers

PLATINODE® HC - hard chrome plating without lead

Large amounts of lead are used in hard chrome plating. The metal itself and the waste products created during chrome plating are classified as hazardous to the environment and to human health. The use of lead anodes will only continue to be possible under increasingly time-consuming and costly occupational health and environmental restrictions.

We help you use platinum-plated titanium anodes to make your hard chroming plating processes eco-friendly, high-quality and economical. It requires significantly fewer resources than lead anodes: multiple uses are possible thanks to re-platinization.

You can find more detailed information at:
www.ep.umicore.com/platinode-hc

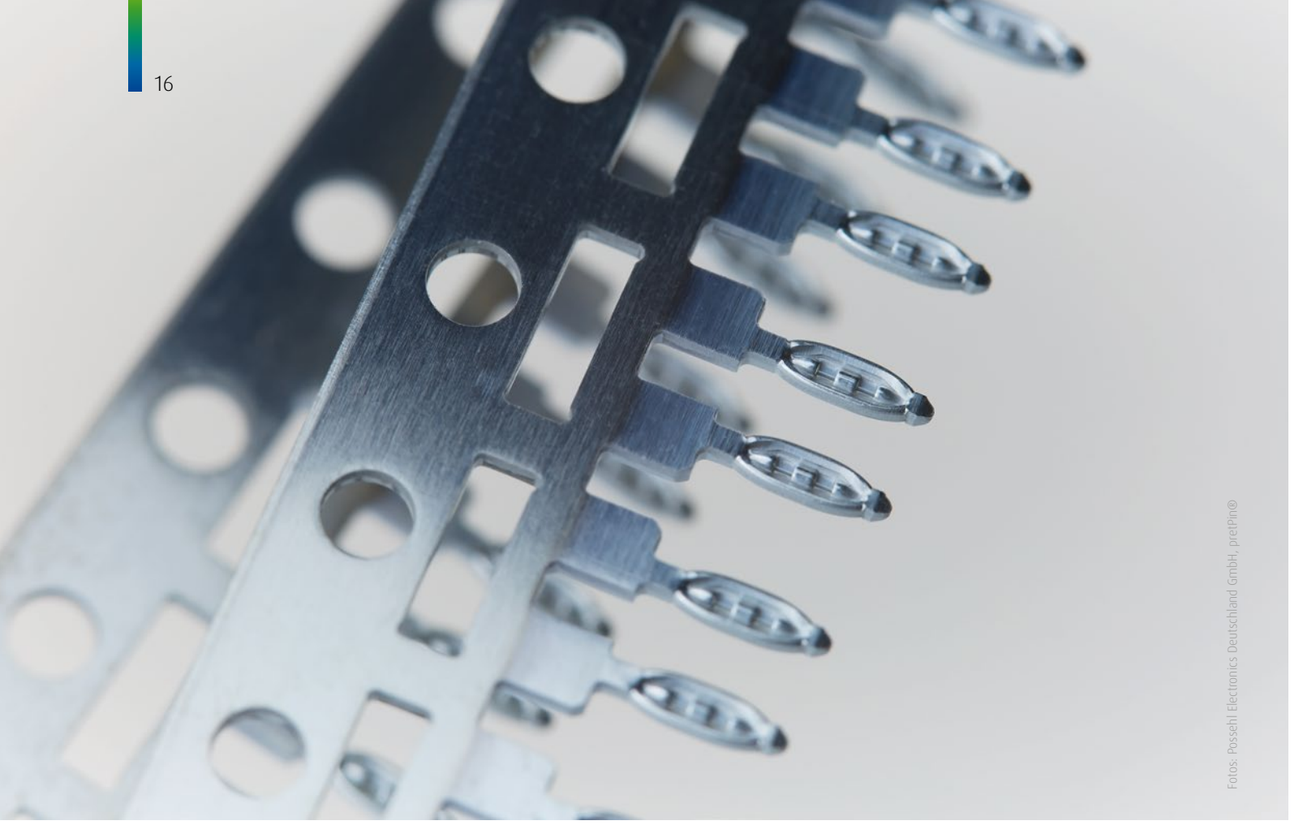
Electrocatalytic layers increase safety and yield in wafer plating

The wafer contact elements and also the anodes are of critical importance in wafer plating equipment. The cathodic contact resistance varies over time – this leads to variations in thickness of plated layers. Soluble anodes change lateral dimension, because they dissolve during operation – this has a negative impact on constant plating results.

Umicore modification of wafer contacts and the use of our insoluble anodes help to overcome these issues.

Our molten salt platinum coating on your wafer contacts offers minimal contact resistance and, therefore, optimal power distribution in the wafer.

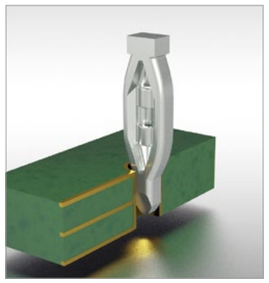
You can find more detailed information at:
www.ep.umicore.com/platinode-sc



Fotos: Possehl Electronics Deutschland GmbH, pretPin®

The Indium 9100 process fulfils all press-fit technology requirements.

Indium electrolyte for press-fit technology for PCBs



With Indium 9100, our portfolio also now includes an indium electrolyte. It was especially developed for high-speed depositing in selective coating systems and continuously working conveyor systems. Due to strong electrolyte movement (current, splashing), it facilitates working with high currents in the case of stable long-term behavior.

Due to the very good possibility of remelting and a constantly low contact resistance, the Indium 9100 process is excellently suited to the press-fit technology for circuit boards.

You can find more detailed information at:
www.ep.umicore.com/indium-9100

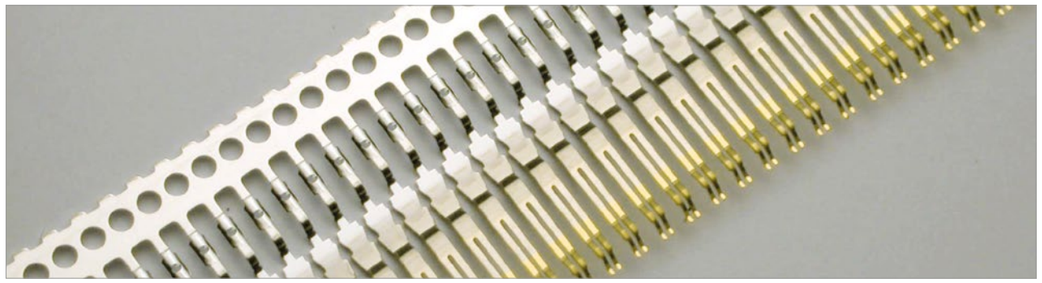
No ammonia smell with PALLUNA® ACF-100

PALLUNA® ACF-100 is a palladium nickel electrolyte that is used in electrical contacts for plugs and as a hard gold replacement.

This palladium nickel electrolyte comes with all the technical benefits of other electrolytes but without the smell of ammonia. The deposited layers are ductile, tear-free and resistant to wear. PALLUNA® ACF-100 also has pricing on its side: with contact properties comparable to hard gold, this palladium nickel layer system is the significantly cheaper alternative.

A gloss additive developed especially for PALLUNA® ACF-100 allows analytical electrolyte monitoring. So even the high requirements of new quality standards and stricter guidelines such as the IATF 16949 can be met through compliant process monitoring.

PALLUNA® ACF-100 is a great-value hard gold replacement for electrical plug contacts.



You can find more detailed information at:
www.ep.umicore.com/palluna-acf-100

View of trade fair booth at Productronica

Event calendar 2020

We'll be present at countless trade fairs worldwide, but also smaller events such as conferences and symposiums. So this coming year will offer plenty of opportunities to meet us face to face to discuss challenges, solutions and trends. On both sides. Even for our specialists, trade fairs and events provide a great informal atmosphere to exchange opinions and knowledge.

In 2020, our representatives will again be present at many events:

15. - 17.01.	Nepcon Japan, Tokyo
02. - 05.06.	JCK, Las Vegas
16. - 18.06.	Surface Technology Germany, Stuttgart
29.06. - 01.07.	Connectors User Congress, Würzburg
15. - 19.09.	Jewellery & Gem World, Hong Kong
08. - 10.12	SF China, Guangzhou

You can always find all events posted here:
www.ep.umicore.com/events

Expansion of digital communication channels

It's not every day that we get the opportunity to personally inform you of new or modified processes, electroplating trends, events and staffing changes here at our company. We'd love to keep you up to date more often, so we're constantly working on our communication channels. So you can decide for yourself if you'd like to be the first in the know every time.

Follow social media channels

Many of you now use social media channels privately and probably also professionally. We don't want to lag behind so are striving to announce news on the day:

LinkedIn www.linkedin.com/company/umicore
Facebook www.facebook.com/Umicore
Instagram www.instagram.com/umicoregroup
YouTube www.youtube.com/user/umicore

We'd be happy to see you follow us on these channels. If you mostly use Xing professionally - we plan to develop a presence here during the coming year.

All the news in your inbox

Unfortunately, organic post sorting within social networks often means that not all of our news will reach you. That's why we'd like to offer a newsletter service from February 2020. You'll soon be able to sign up on our website www.ep.umicore.com. So you'll regularly receive all the latest information directly in your inbox.

A regular newsletter is planned for the start of 2020 with all the most important topics.

Right Composition.
Perfect Surface.

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