

Oerlikon Riri and Oerlikon Fineparts expand their PVD technology capabilities to enhance sustainability and performance

Mendrisio, Switzerland – October xx, 2024 – Oerlikon Riri and Oerlikon Fineparts, the luxury brands of Oerlikon, are further expanding the use of their advanced **Physical Vapour Deposition (PVD)** processes, leveraging Oerlikon Balzers' technological expertise. Oerlikon aims to raise its profile as the leading provider of high-quality, environmentally-friendly finishes for the luxury sector, balancing style, performance, and sustainable improvement.

Oerlikon recently installed a new Oerlikon PVD equipment at the Fundão plant in Portugal, a center of excellence for surface treatments. It is designed, manufactured and engineered by Oerlikon Balzers, allowing Oerlikon Riri and Oerlikon Fineparts to produce high volumes of PVD finished components with impeccable quality and homogenous surface finish.



The **METAPLAS.DOMINO kila** from Oerlikon is designed to produce highly cost-effective **PVD** coatings of superior quality.



“The increased adoption of PVD technology perfectly aligns with our goal of creating high-performance, sustainable products for the luxury market,” says **Katharina Rick, President of the Luxury business sector at Oerlikon**. “In a challenging time for the luxury market, our efforts are focused on minimizing our environmental footprint while providing our clients with finishes that meet the highest standards of beauty and durability. PVD allows us to redefine the perception of metallic finishes in fashion, bringing a new level of sophistication and sustainability to our offerings.”

Creating sustainable products for the luxury industry using PVD

Physical Vapour Deposition is a thin-film coating process that distinguishes itself from traditional galvanic techniques, offering numerous benefits. From a technical perspective, it provides greater resistance to scratches and oxidation, extending the lifecycle of luxury accessories and ensuring they retain their visual appeal over time. A key advantage of this process is its ability to create **durable and uniform finishes on accessories**, providing customers a range of colors and effects that are challenging to achieve through conventional technologies.

From an environmental standpoint, the benefits of PVD are even more evident. After conducting an internal analysis to compare the differences between a PVD-treated stainless steel accessory and electroplating-treated brass version, PVD resulted in a **76% reduction in overall environmental impact measured in kg CO₂ equivalent**. The process eliminates water usage entirely, achieving a **100% saving in water consumption**. This also results in a 97% decrease in waste and a substantial saving in the use of precious metals, contributing to an **83% reduction in CO₂ emissions related to raw material sourcing and processing**.

Moreover, PVD’s use of **stainless steel as a base material**, instead of the more commonly used brass, further enhances the sustainability profile of the item. Stainless steel components are **6% lighter than brass equivalents**, resulting in both lower transportation emissions and improved comfort when wearing luxury accessories. They are produced by **MIM (Metal Injection Moulding) which significantly reduces scraps in the production process**. Indeed, the raw material utilization for MIM exceeds 95%, whereas cold forging combined with machining processes achieves approximately 60%. The shift to stainless steel also eliminates the risk of lead contamination and improves the longevity of products by avoiding oxidation. This allows accessories to maintain their original aesthetic over a long period of time.

RIRI SA

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About Oerlikon

Oerlikon (SIX: OERL) is a global innovation powerhouse for surface engineering, polymer processing and additive manufacturing. The Group's solutions and comprehensive services, together with its advanced materials, empower customers by improving and maximizing the performance, function, design and sustainability of customers' products and manufacturing processes in key industries. Pioneering technology for decades, everything Oerlikon invents and does is guided by its passion to support customers' goals and foster a sustainable world. Headquartered in Pfaeffikon, Switzerland, the Group operates its business in two Divisions – Surface Solutions and Polymer Processing Solutions. It has a global footprint of more than 12 600 employees at 207 locations in 38 countries and generated sales of CHF 2.7 billion in 2023.

About the Oerlikon Surface Solutions Division

Oerlikon is a leading global provider of surface and additive manufacturing solutions and services. The division offers an extensive portfolio of market-leading thin-film, thermal spray and additive manufacturing technologies, equipment, components and materials. Emission reduction in transportation, maximized longevity and performance of tools and components, increased efficiency and intelligent materials are hallmarks of its leadership. Pioneering technology for decades, the division serves customers with standardized and customized solutions across a worldwide network of more than 170 sites in 37 countries.

With its technology brands – Oerlikon Balzers, Oerlikon Metco, Oerlikon AM, Oerlikon Riri and Oerlikon Fineparts – the Oerlikon Surface Solutions division focuses on technologies and services that improve and maximize performance, function, design, reliability and sustainability, which are innovative, game-changing advantages for customers in the automotive, aviation, tooling and general industries and in the luxury, medical, semiconductors, power generation and oil & gas markets.

The division is part of the publicly listed Oerlikon Group (SIX: OERL), headquartered in Switzerland, which has 12 600 employees and generated CHF 2.7 billion in revenue in 2023.

For more information see: www.oerlikon.com/surface-solutions

Oerlikon's luxury business specializes in producing high-quality accessories for world-leading brands in the fashion and luxury industry. It operates under two brands: Oerlikon Riri, which encompasses zippers and buttons under the Riri and Cobrax brands, respectively, and Oerlikon Fineparts, which offers an integrated range of metal components and fashion jewelry. Oerlikon Fineparts unites renowned Tuscan companies Amom, DMC, and CMH, along with the French company Coeurdor. The headquarters are located in Mendrisio, Switzerland, with operations spanning 11 sites across Italy, Switzerland, France, and Portugal.

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