

Oerlikon Balzers' sustainable technologies and coatings for plastics processing at K 2022

Balzers, Liechtenstein, October 5, 2022 – **Oerlikon Balzers, a technology brand of Oerlikon and world leading in the field of thin-film coatings, will present its latest solutions for plastics processing at the K 2022 trade fair. In line with Oerlikon's sustainability strategy, these coatings provide optimal protection against abrasive wear and corrosion, especially when new and recyclable plastics are used. These benefits help customers to extend tool life, ensure a more stable production process and deliver high-quality plastic products.**

Coated forming tools provide outstanding protection against corrosion and reduce friction and wear. In injection molding and extrusion, the surface of the forming tools has a critical role to play: the higher the surface quality, the more productive and efficient the manufacturing process. In current projects, this is being further optimized in combination with hot runner systems from the sister brand Oerlikon HRSflow.

A new coating for injection molding of recyclable plastics

Oerlikon Balzers' BALINIT CROMA PLUS, a PVD coating which protects molds from abrasive wear, corrosion and sticking, has proved its value over many years for use in injection molding, extrusion and blow molding for a wide range of plastics.

Its successor is BALINIT MOLDNA, which will be launched at K 2022. It is the ideal protective coating for injection molding with aggressive glass fibers in plastics, which are used in modern automotive engineering to enable lightweight construction with the aim of reducing emissions even further. The coating optimizes flow behavior, simplifies demolding and considerably reduces abrasive wear and deposit formation to ensure improved use of the material and longer maintenance intervals.

Extremely hard and just 7 micrometers thin, BALINIT MOLDNA has been developed for fully recycled materials to enable circular plastic economy and also for materials with a high flame retarder content. The coating has already produced impressive results in testing: with a standard coating applied to injection molds used in processing unsaturated polyester (40%), the number of injections increased by a factor of five while maintaining the same high product quality.

Full polishing and coating service

Oerlikon offers customers a full service solution, including polishing and coating, which is perfectly tailored to forming molds. Depending on the application requirements, the company's highly qualified personnel perform line polishing using a specified grain size or high-gloss polishing, even at the customer's site, if requested.

REACH-compliant plastic metallization in a wide range of colors

Metallized plastic components are of the same high quality as chrome-plated metal components, but can be manufactured cost-effectively. In addition, they weigh significantly less and are therefore preferred by today's car manufacturers.

The Oerlikon experts will be at K 2022 in Düsseldorf to advise visitors on the various combinations of solutions using hot runner systems, form tool coatings and plastic component coatings.



The new BALINIT MOLDNA coating enables reusing of recyclable plastics as part of to be fed back into the circular economy. It optimizes flow behavior and simplifies demolding to ensure a smooth production process.

For more information, please contact:

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About 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 and Oerlikon AM – Oerlikon's 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, general industries, 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 12000 employees and generated CHF 2.65 billion in revenue in 2021.
For further information: www.oerlikon.com/surface-solutions