

Highly abrasion and corrosion resistant coating for injection moulding and extrusion

Oerlikon Balzers, a world leading Oerlikon brand that provides advanced surface solutions, has introduced BALINIT MOLDENA, a new coating for injection moulding and extrusion of filled polymers. Its superior abrasive and corrosion resistance makes it perfect for applications with glass fibre reinforced plastics (GFRPs) and fully recycled materials while ensuring a longer mould service life and delivering high-quality products.

In line with the Oerlikon's sustainability strategy, BALINIT MOLDENA is the optimum solution for processing new and recyclable plastics in order to improve energy efficiency and conserve resources. The coating also increases mould service life, while customers benefit from a stable production process and high-quality products. The newly developed coating from the Oerlikon Balzers brand is just 7 µm thin and exceeds the hardness of almost all previous coatings for processing plastics. Its outstanding abrasion and corrosion properties make BALINIT MOLDENA the perfect coating

for injection moulding and extrusion of abrasive materials such as GFRPs, and it is also ideal for injection moulding of corrosive materials such as fully recycled materials or those with a high flame retardant content. BALINIT MOLDENA has already proved effective in various customer tests, showing less wear than all conventional abrasion-resistant coatings and significantly improving the corrosion resistance in neutral salt spray testing. When a standard coating was applied to injection moulds used to process unsaturated polyester (40 %), the coating peeled off after 40,000 shots.

With the new coating from Oerlikon Balzers, the same high-quality products continued to be delivered even after 200,000 shots. Andreas Reiter, Head of Product Line Tools, says: "Our customers are increasingly using lighter and recycled plastics in order to improve energy efficiency and conserve resources. With BALINIT MOLDENA, we have succeeded in enhancing our existing solutions for processing plastics. We are delighted that we can offer our customers the optimum solution that enables a stable process and increases the service life of their polymer production lines."



Oerlikon Balzers' new BALINIT MOLDENA for injection moulding and extrusion of filled polymers provides superior abrasion and corrosion resistance for applications with glass fibre reinforced plastics (GFRPs) and fully recycled materials while ensuring a longer mould service life and delivering high-quality products (Picture: iStock)