

BALINIT CROMA

Maximum performance for plastics processing

The innovative wear protection solution
for more productivity and efficiency

Plastics

With **BALINIT CROMA**, your plastics processing will be in top form

Whether injection molding, extrusion or blow molding: Only forming tool surfaces of the best quality ensure optimal productivity and efficiency in manufacturing processes. Take advantage of the **BALINIT® CROMA** and **BALINIT® CROMA PLUS**

PLUS wear protection solutions from Oerlikon Balzers, a worldwide technological leader in the field of hard coatings. They offer you the precise advantages that are essential for reliability and success in your plastics processing.

Extremely coating hardness

High-level protection from abrasive wear

Protection from wear due to cleaning processes and tool damage

Multi-layer structure

Significantly less corrosion due to a chemically saturated, dense multi-layer structure

Low coefficient of friction

The molding materials show very good sliding behaviour on the tool surfaces

First-class surface properties

Excellent adhesion

Surfaces with low reactivity

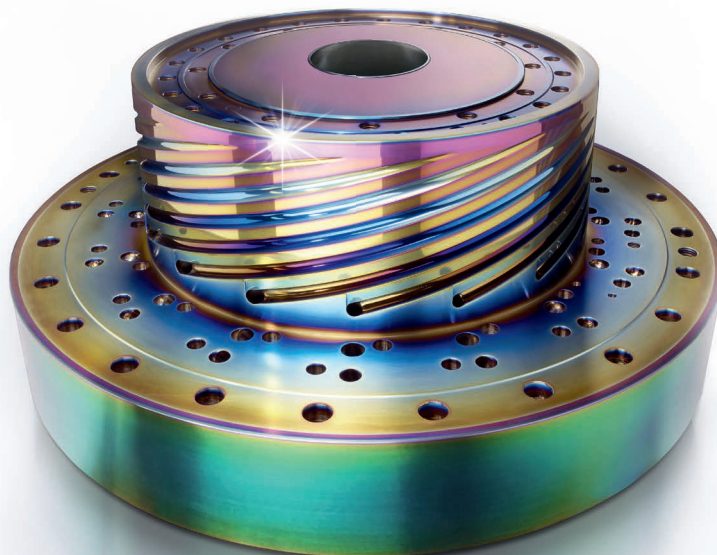
Significant reduction of deposits

Reduction of tool costs due to longer tool service lives

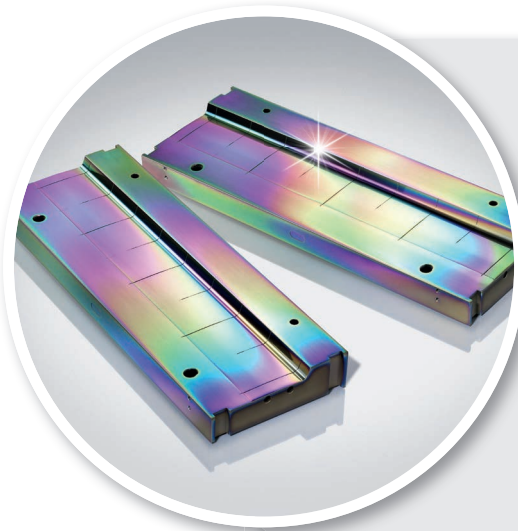
Reduction of product and piece costs through decreased machine downtimes and improved tool surface quality

Reduction of maintenance costs through decreased servicing and cleaning requirements

BALINIT® CROMA and BALINIT® CROMA PLUS:
Increased productivity, economy and manufacturing process reliability



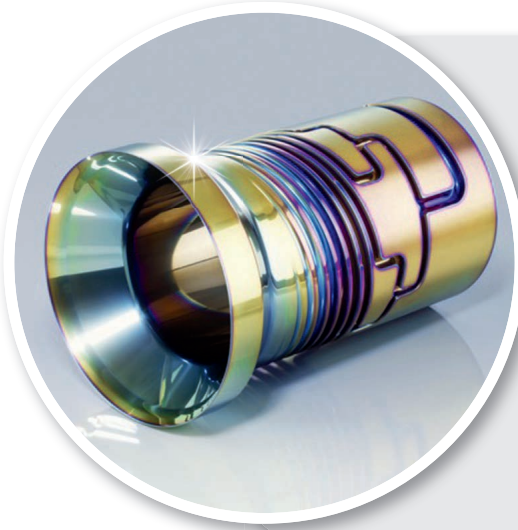
Top performance data for added value



BALINIT® CROMA PLUS for plastic window frames

Tool	Vacuum calibration unit
Workpiece	PVC window frames
Challenge	Untreated: Glass fibres and TiO ₂ cause abrasion on the edges of the vacuum grooves as well as on the flat sliding surface; this leads to scratches on the profile and stick-slip effects

The solution: BALINIT® CROMA PLUS	<ul style="list-style-type: none"> - High-level abrasion and scratch resistance - Increased coating service life by up to 6.000 miles / 9.600 kilometres - Oxide coating produces 30% better material flow - Reduction of sticking - Higher productivity and manufacturing process reliability
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BALINIT® CROMA PLUS for plastic films

Tool	Spiral mandrel die
Workpiece	HDPE packaging film
Challenge	Quality issues in the films due to local plastic spots sticking to the surface, abrasive cleaning causing wear and scratches, surface gets dull and rougher after ~1 year process

The solution: BALINIT® CROMA PLUS	<ul style="list-style-type: none"> - Greater production efficiency and reliability - Significantly reduced or even eliminated sticking - Excellent scratch protection - No chemical interaction – no visual change of BALINIT® CROMA PLUS
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Persuasive coating properties!

	BALINIT® CROMA	BALINIT® CROMA PLUS
Micro hardness (HV 0.05)	2,500	2,500
Coefficient of friction (dry against steel)	0.3 – 0.5	0.3 – 0.5
Coating thickness (µm)	4 – 10	4 – 10
Coating material / coating structure	CrN (multi-layer)	CrN+OX (multi-layer with top layer)
Maximum service temperature (°C)	700	700
Coating temperature (°C)	250 – 450	25 – 450
Corrosion protection	++	++
Intrinsic roughness	++	++
Colour	Silver-grey	Rainbow

Coatings also available in the DUPLEX series.

All data is understood to represent guideline values. Exact values are dependent on the respective substrate, the geometry and the surface finish.

Benefit from the high-performance coatings **BALINIT CROMA** and **BALINIT CROMA PLUS**. Contact us now!

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