

**oerlikon**  
balzers

# Carbon-based BALINIT coatings

The DLC coating series that makes plastic processing productive and efficient



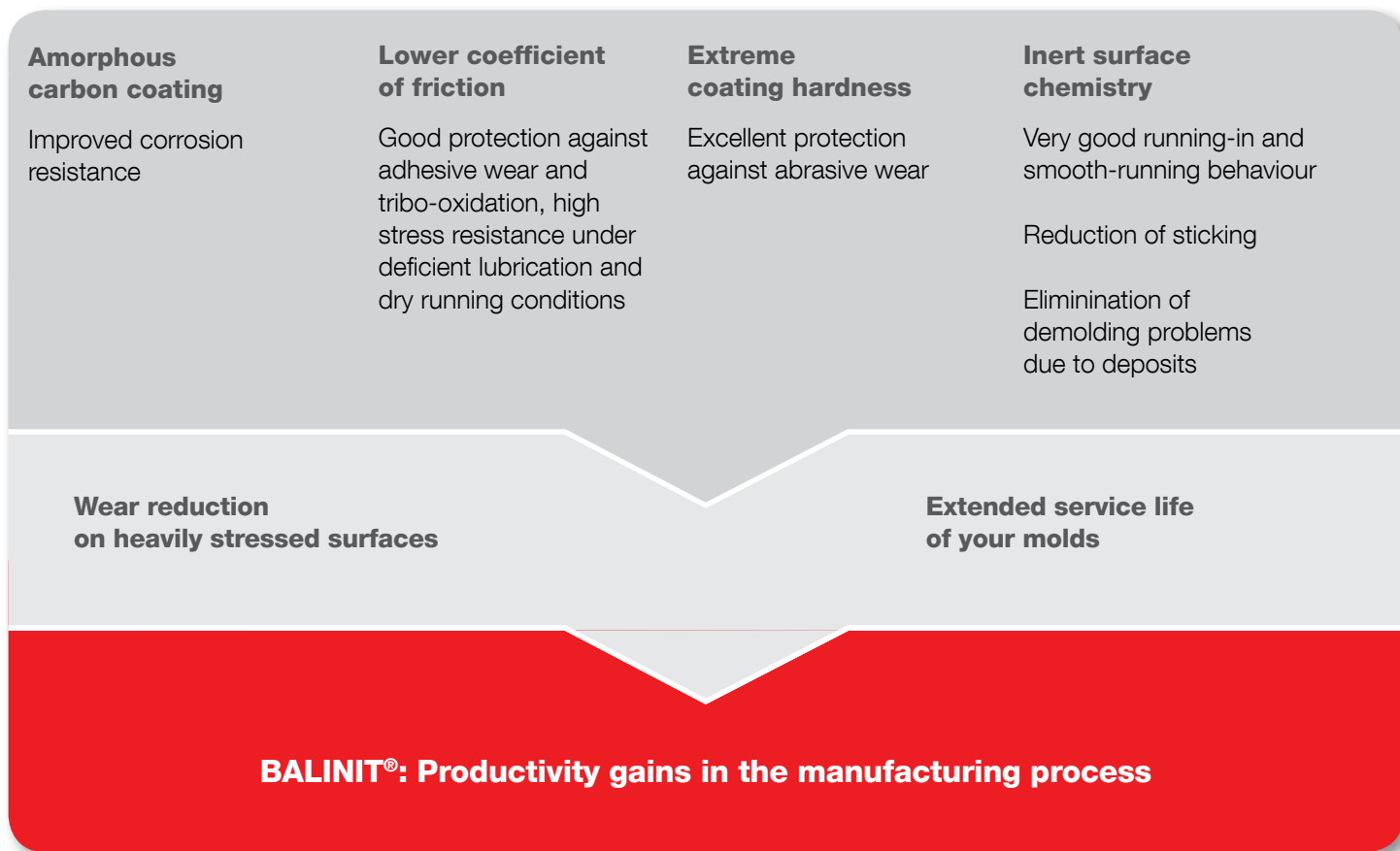
Plastics



# BALINIT – The series of production benefits!

Tribological systems are exposed to extreme mechanical stresses. That's why an optimised surface coating of your plastic injection molds is so essential: It reduces wear in heavily stressed zones, increases the service life of your molds, and boosts the productivity of your manufacturing

process. Trust the DLC coating series developed by Oerlikon Balzers: BALINIT® C, BALINIT® TRITON, BALINIT® HARD CARBON, BALINIT® DYLYN, BALINIT® DYLYN PLUS, and BALINIT® DYLYN PRO coatings feature outstanding properties:



## The DLC coating series – the ideal solution for your challenges

	BALINIT® C	BALINIT® TRITON	BALINIT® HARD CARBON	BALINIT® DYLYN	BALINIT® DYLYN PLUS	BALINIT® DYLYN PRO
Abrasion	+	++	+++	++	++	++
Adhesion (seizure)	+++	+++	+	+++	+++	+++
Corrosion	+	++	++	+++	+++	+++
Demolding					++	+++
Mold filling					+++	+++

# The optimised solution for every application!

Whether electrical, electronic, med-tech, pharma or packaging: In many industries, our DLC coatings

are pivotal elements in reliable, high-performance plastics processing environments.



## **BALINIT® DYLYN PRO or BALINIT® DYLYN PLUS** e.g. for thread cores for cap molds

- Service life up to 10 million parts
- repolishing required
- Extra corrosion resistance for CuBe cooling cores



## **BALINIT® C and BALINIT® DYLYN** e.g. for ejectors and slider systems

- Reduced mold servicing effort
- Streamlined production



## **BALINIT® HARD CARBON and BALINIT® DYLYN PLUS** e.g. for bellows form segment

- Reduced adhesion
- Less maintenance

## Persuasive parameters

	<b>BALINIT® C</b>	<b>BALINIT® TRITON</b>	<b>BALINIT® HARD CARBON</b>	<b>BALINIT® DYLYN</b>	<b>BALINIT® DYLYN PLUS</b>	<b>BALINIT® DYLYN PRO</b>
Coating material	Me-C:H	a-C:H	ta-C	a-C:H:Si	a-C:H:Si	a-C:H:Si
Microhardness (HV 0.05)	1,500	2,500	5,000	2,500	2,200	2,100
Coefficient of friction (dry against steel)	0.1 – 0.2	0.1 – 0.2	0.1 – 0.2	0.1 – 0.2	0.05 – 0.1	0.05 – 0.1
Max. service temperature (°C)	300	300	500	300	350	350
Coating temperature (°C)	180 – 250	180 – 250	< 150	180 – 220	180 – 220	180 – 220
Coating colour	Charcoal	Black	Black	Black	Black	Black
Available as STAR version*	x (CrN)	x (CrN)		x (Ti)	x (Ti)	x (Ti)

\* The STAR versions deliver better load-bearing capabilities paired with high surface pressures.

The following materials can be coated: High-speed steels, plastic mold steels, cold- and hot-working steels, stainless steels, heat-treatable steels, cemented carbides, suitable CuBe alloys.

All data provided herein is for reference purposes only. Definitive values depend on the respective substrate, geometry, and surface finish.

## Benefit from the high-performance DLC coating series Contact us now!

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