

oerlikon
balzers

Carbon-based BALINIT coatings

The DLC coating series that makes plastic processing productive and efficient



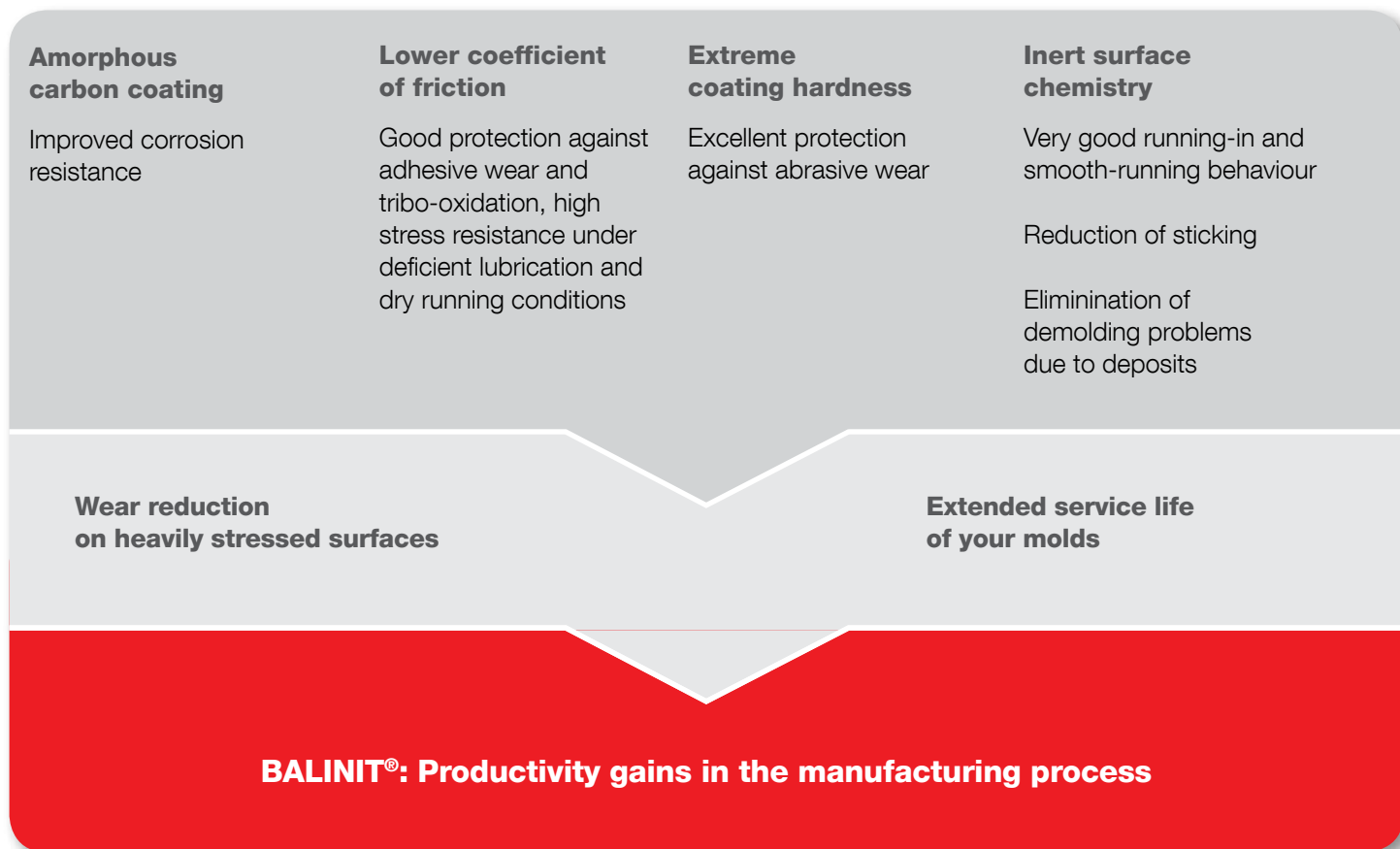
Plastics



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

	BALINIT® C	BALINIT® TRITON	BALINIT® HARD CARBON	BALINIT® DYLYN	BALINIT® DYLYN PLUS	BALINIT® DYLYN PRO
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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