Carbon-based BALINIT coatings

The DLC coating series that makes plastic processing productive and efficient
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:

<table>
<thead>
<tr>
<th>Amorphous carbon coating</th>
<th>Lower coefficient of friction</th>
<th>Extreme coating hardness</th>
<th>Inert surface chemistry</th>
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</thead>
<tbody>
<tr>
<td>Improved corrosion resistance</td>
<td>Good protection against adhesive wear and tribo-oxidation, high stress resistance under deficient lubrication and dry running conditions</td>
<td>Excellent protection against abrasive wear</td>
<td>Very good running-in and smooth-running behaviour</td>
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</table>

| Wear reduction on heavily stressed surfaces | Extended service life of your molds |

BALINIT®: Productivity gains in the manufacturing process

The DLC coating series – the ideal solution for your challenges

<table>
<thead>
<tr>
<th>Abrasion</th>
<th>BALINIT® C</th>
<th>BALINIT® TRITON</th>
<th>BALINIT® HARD CARBON</th>
<th>BALINIT® DYLYN</th>
<th>BALINIT® DYLYN PLUS</th>
<th>BALINIT® DYLYN PRO</th>
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<thead>
<tr>
<th>Adhesion (seizure)</th>
<th>BALINIT® C</th>
<th>BALINIT® TRITON</th>
<th>BALINIT® HARD CARBON</th>
<th>BALINIT® DYLYN</th>
<th>BALINIT® DYLYN PLUS</th>
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<tr>
<th>Corrosion</th>
<th>BALINIT® C</th>
<th>BALINIT® TRITON</th>
<th>BALINIT® HARD CARBON</th>
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<tr>
<th>Demolding</th>
<th>BALINIT® C</th>
<th>BALINIT® TRITON</th>
<th>BALINIT® HARD CARBON</th>
<th>BALINIT® DYLYN</th>
<th>BALINIT® DYLYN PLUS</th>
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<tr>
<th>Mold filling</th>
<th>BALINIT® C</th>
<th>BALINIT® TRITON</th>
<th>BALINIT® HARD CARBON</th>
<th>BALINIT® DYLYN</th>
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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.

<table>
<thead>
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<th>Persuasive parameters</th>
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<tr>
<td><strong>Coating material</strong></td>
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<tr>
<td>BALINIT® C</td>
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<td>BALINIT® PLUS</td>
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<tr>
<td>BALINIT® PRO</td>
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<tr>
<td>Microhardness (HV 0.05)</td>
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<tr>
<td>Coefficient of friction (dry against steel)</td>
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<tr>
<td>Max. service temperature (°C)</td>
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<tr>
<td>Coating temperature (°C)</td>
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<tr>
<td>Coating colour</td>
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<tr>
<td>Available as STAR version*</td>
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</tbody>
</table>

* 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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www.oerlikon.com/balzers