Hard work needs hard coatings.

BALINIT® DLC coating for superior reliability and high wear resistance of mechanical seals.

BALINIT® DLC 涂层能够提高机械密封件的可靠性和耐磨性。
**BALINIT® DLC: for safe oil exploration.**

**BALINIT® DLC: 用于安全的石油勘探**

Mechanical seals are used in the rotating equipment such as drilling bits, compressors, pumps etc. and typically subjected to high loads and abrasive environments. BALINIT® DLC coated mechanical seal faces provide outstanding abrasive and adhesive wear resistance due to high hardness and low friction of coating. BALINIT® DLC on dry gas seal components provides increased life and improved performance without additional lubrication. BALINIT® DLC is used for various mechanical seal applications and also can be considered as a replacement for solid ceramic, silicon carbide or thermal sprayed materials. It offers an effective replacement for Cr plating with a lower cost solution.

机械密封件用于旋转机械设备，如：钻头、压缩机、泵等，典型的用于高负载和磨损的环境。由于涂层的高强度和低摩擦，经BALINIT® DLC涂层的机械密封件具有出色的耐磨性。BALINIT® DLC用于干气密封零部件，能够在无需润滑油的情况下，延长配件的使用寿命，改善性能。BALINIT® DLC可用于多种机械密封件，也可以用作固体陶瓷、碳化硅或热喷涂材料的替代品，同时也是镀铬的低成本有效替代方案。

**Your advantages with BALINIT® DLC coated mechanical seals.**

**经BALINIT® DLC涂层的机械密封件的优势**

- Low friction reduces seal damage caused by start up and / or coast down conditions
- Less danger of leakage thus protection of the entire system and the environment
- Increased life and less maintenance
- Significant reduction in downtime
- Cost savings as a result

- 低摩擦力，降低因启动或滑行情况而导致的密封件受损
- 减少了泄漏的危险，从而保护了整个系统和环境
- 延长使用寿命，减少维护次数
- 显著减少了停工时间
- 节约成本

**Trust in constantly low friction and wear resistance.**

**持续减少摩擦、磨损，值得信赖**

![Graph showing weight loss of BALINIT® DLC coated washer test](image)

Effect of BALINIT® DLC coating on the weight loss of a thrust washer test – coated verse uncoated washers (bottom washer coated, total wear of both washers).

Test conditions: 1603 RPM, 600 N, 2 hours, 600P mineral oil, 10 N/mm².

The pV (pressure / velocity) test with two DLC coated washers results in nearly no wear.

A test with both washers uncoated results in high wear.

BALINIT® DLC涂层用于实验条件下摩擦力试验的效果—涂布与未涂布的垫圈作对比（垫圈底部已涂覆，两个垫圈都磨损）。

测试环境：1603 RPM, 600 N, 2 小时, 600P 矿油, 10 N/mm²。

未涂覆的垫圈在测试中均高度磨损。

**We recommend: BALINIT® DLC for safe sealing**

**我们推荐：BALINIT® DLC涂层用于安全密封**

<table>
<thead>
<tr>
<th>BALINIT® DLC and DLC STAR</th>
<th>Coating material 涂层材料</th>
<th>Micro-hardness (HV) 维氏硬度</th>
<th>Typical thickness 标准厚度</th>
<th>Colour 颜色</th>
</tr>
</thead>
<tbody>
<tr>
<td>α-Cr/CHN</td>
<td>&gt; 2000</td>
<td>2.4 μm</td>
<td>Black 黑色</td>
<td></td>
</tr>
</tbody>
</table>

**There’s much more to talk about – please get in touch to discuss what we can do to improve your business.**

更多需要了解，请与我们联系

OC Oerlikon Balzers AG | Balzers Technology & Service Centre | Iramali 18 | 9496 Balzers | Liechtenstein
T: +423 388 7500 | F: +423 388 8419 | E: components.balzers@oerlikon.com | www.oerlikon.com/balzers

Oerlikon Balzers Coating (Suzhou) Co., Ltd | No.9 Chang Yang Street | Suzhou Industrial Park 215024 | Jiangsu Province | P.R.China
T: +86 512 67620369 | F: +86 512 67620359 | E: info.balzers.cn@oerlikon.com