Experience BALIQ UNIQUE

Follow the Flow of Intelligence

The Art of COATING
When art meets innovation ...
Unique colouring for even more functionality

- Now you can differentiate your tools at a glance – simply assign individual colours to your tool types or tool groups.
- Choose the colours that best match your application.
- Combine top performance with a look never seen before.
- Give your tools a uniquely dazzling appearance.
- You can recognise the degree of abrasion immediately – the colour tells all.
BALIQ UNIQUE

Endmills

Taps

Drills

Reamers

The Art of COATING
The revolutionary smoothness of BALIQ – the premiere in colours

What began as a technological quantum leap with our S3p® technology (Scalable Pulsed Power Plasma) and the revolutionary new BALIQ® coating generation is now taking the next innovative step.

As a result, in addition to the intelligent combination of Arc Evaporation and Sputtering, BALIQ® offers you yet another pioneering advantage:

With BALIQ® UNIQUE, colour has come into play literally for the first time. That means, you can benefit from the outstanding wear protection properties of BALIQ® UNIQUE as well as giving your tools a look that is absolutely unique.

BALIQ®

Exceptional precision
High precision in coating thickness distribution guarantees extremely sharp edges. Outstanding results are achieved especially with tools that have ultra-small diameters.

High density
The density of BALIQ® coatings is very close to the greatest density theoretically possible. High toughness and high resistance to crack propagation and diffusion are salient features.

Excellent friction
Among other benefits, the excellent coefficient of friction of BALIQ® results in improved chip flow and reduced built-up edge formation.

Revolutionary smoothness
BALIQ® enables smooth chip removal and eliminates the need for mechanical post-treatment. Adhesion and built-up edges are avoided even with difficult-to-machine materials.

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Balig
The innovative performance of BALIQ – the premiere in colours

BALIQ® UNIQUE convincing test results for microdrills in steel

<table>
<thead>
<tr>
<th>Tool</th>
<th>Microdrill</th>
<th>Ø 0.6 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workpiece</td>
<td>Steel 1.3505</td>
<td>(AISI52100, SUJ 2)</td>
</tr>
<tr>
<td>Cutting parameters</td>
<td>v_c = confidential</td>
<td>L_c = confidential</td>
</tr>
<tr>
<td>Emulsion</td>
<td>Source</td>
<td>Tool manufacturer / European end user</td>
</tr>
<tr>
<td>Source</td>
<td></td>
<td>Oerlikon Balzers Cutting Laboratory</td>
</tr>
</tbody>
</table>

BALIQ® UNIQUE for thread forming in steel

<table>
<thead>
<tr>
<th>Tool</th>
<th>PM-HSS threat former M10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workpiece</td>
<td>Steel 1.7225</td>
</tr>
<tr>
<td>Cutting parameters</td>
<td>v_c = 17.5 m/min</td>
</tr>
<tr>
<td>Blind hole</td>
<td>Emulsion</td>
</tr>
<tr>
<td>Source</td>
<td>Oerlikon Balzers Cutting Laboratory</td>
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</tbody>
</table>

BALIQ® UNIQUE for reaming of case hardening steel

<table>
<thead>
<tr>
<th>Tool</th>
<th>Reamer</th>
<th>Ø 3.0 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workpiece</td>
<td>Steel 1.7147</td>
<td>(AISI5120, SMnC420(H))</td>
</tr>
<tr>
<td>Cutting parameters</td>
<td>Confidential</td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td>European tool manufacturer</td>
<td></td>
</tr>
</tbody>
</table>

All given data are approximate values, they depend on application, environment and test conditions.
 Benefit from the new BALIQ UNIQUE generation
Get in touch with us today!

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www.oerlikon.com/balzers