HabaDRIVE® Quantum Leap
TC Polyester Power Transmission Belts
New and revolutionary TC-20EFQ, TC-35ERQ and TC-35EFQQO

Habasit introduces a revolutionary new generation of HabaDRIVE® power transmission belts with additional innovative features

- Slow aging
- Energy/cost savings
- High cost/performance ratio
- Superior quality
- Simple and reliable Flexproof joining system
- Operational safety

Habasit – Solutions in motion
### Belt types/Technical key data

#### TC-20EFQ
- **1.** Red
- **1.** Habasit Quantum Leap rubber
- **1.** Fine structure

#### TC-35ERQ
- **1.** Red
- **1.** Habasit Quantum Leap rubber
- **1.** Rough structure

#### TC-35EFQO (O=Open-end)
- **1.** Red
- **1.** Habasit Quantum Leap rubber
- **1.** Fine structure

#### Technical key data

<table>
<thead>
<tr>
<th></th>
<th>TC-20EFQ</th>
<th>TC-35ERQ</th>
<th>TC-35EFQO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Thickness</strong></td>
<td>[mm]</td>
<td>2</td>
<td>2,5</td>
</tr>
<tr>
<td></td>
<td>[in]</td>
<td>0,08</td>
<td>0,10</td>
</tr>
<tr>
<td><strong>Tensile force for 1% elongation</strong>&lt;br&gt;(k1% after running-in) per unit of width&lt;br&gt;(Habasit standard SOP3-013)</td>
<td>[N/mm]</td>
<td>10</td>
<td>18,0</td>
</tr>
<tr>
<td></td>
<td>[lbs./in.]</td>
<td>57</td>
<td>103</td>
</tr>
<tr>
<td><strong>Pulley diameter minimum with counter flection</strong></td>
<td>[mm]</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>[in]</td>
<td>1,0</td>
<td>2,0</td>
</tr>
<tr>
<td><strong>Surface structure pulley side</strong></td>
<td>[embossing]</td>
<td>rough</td>
<td>rough</td>
</tr>
<tr>
<td><strong>Surface structure spindle/rotor side</strong></td>
<td>[embossing]</td>
<td>fine</td>
<td>rough</td>
</tr>
</tbody>
</table>
Features and customer benefits

### Features and customer benefits of TC-20EFQ, TC-35ERQ and TC-35EFQO

<table>
<thead>
<tr>
<th>Features</th>
<th>Reasons / Proof</th>
<th>Benefits</th>
</tr>
</thead>
</table>
| **Constant coefficient of friction** | Newly developed Quantum Leap rubber on both friction covers is tailored for high temperatures and mechanical stress | → Longer service life than conventional belts  
→ High reliability, no unexpected belt failures  
→ High cost/performance ratio  
→ Reduced operating costs  
→ Constant running-up throughout belt life |
| **Energy saving** | High belt flexibility | → Lower energy consumption  
→ Economical and ecological  
→ Reduced operating costs |
| **High dimensional stability**  
**Low sensitivity to humidity** | PET traction layer with special interlinked fabric construction enables stable modulus of elasticity | → Constant belt tension  
→ Uniform and reliable production  
→ No re-tensioning  
→ No slip / creep |
| **Simple and fast Flexproof joining method** | Adhesive-free joint  
Easy and fast joint  
Homogeneous joining | → Easy handling (no adhesives)  
→ Minimum equipment required  
→ Short machine downtimes  
→ Reduced operating costs |
| **Two colors for correct installation** | Red/yellow | → Installation aid  
→ Safe installation  
→ Short downtimes |

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**Testimonial**

“TC-35EFQO belts are performing very well without any failure since the installation.  
... the after sales response and service support from Habasit Iakoka is excellent.”

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No of belts: 6  
Rotor speed: 120,000 rpm  
Running hrs Habasit belt: 12,000 and still in operation.  
Competitor belts replaced after 8,500 hours.
Laboratory and field test results

Rubber aging

<table>
<thead>
<tr>
<th>Belt</th>
<th>Running hours</th>
<th>Belt condition</th>
</tr>
</thead>
</table>
| TC-35ER    | 2000          | • Start of surface glazing visible  
• First abrasion of surface structure and reduction of coefficient of friction |
| TC-35ER    | 4500          | • Strong glazing visible  
• Surface structure disappeared  
• Further reduction of coefficient of friction |
| TC-35EFQO  | 9000          | • No glazing  
• No abrasion  
• Constant coefficient of friction  
• Uniform machine operation |

Measured rotor running-up time

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