The new TC-25EFO power transmission belt (development code XVR-2551) consists of a new, specially designed thermoplastic belt body that includes a reinforced polyester fabric and a bonding system with improved temperature resistance. The belt body is combined with optimized elastomer covers that provide consistent grip and high abrasion resistance.

The new belt features an adhesive-free joining method, outstanding dimensional stability, and excellent flex-fatigue properties and reliability. Customers benefit from a long belt life and high machine performance.
The TC-25EFQ polyester power transmission belt is particularly suitable for use as a tangential belt on ring spinning machines. It supplements Habasit’s comprehensive range of belts for the yarn processing industry and was developed in line with the requirements of leading machine manufacturers and end users. The new concept was extensively tested in the field on representative applications and under very demanding climatic conditions for more than a year. According to the test results, the TC-25EFQ delivers:

- Neither delamination, nor disruptive cracks in the rubber layers, nor glazing
- Excellent dimensional stability; compared with competitors’ products, no re-tensioning was required
- Excellent belt tracking
- Uniform rpm and yarn quality
- High machine performance and output
- Long belt service life

Installation

- The yellow side features high-performance rubber and must be used as the pulley side in order to achieve the best results.
- The black side (i.e. the opposite side) is optimized for antistatic properties.
- On the Omega drive, the yellow side is the pulley side, which is in contact with the driving pulley and the spindles.
### TC-25EFQ
The new benchmark for reliability and performance

#### Performance summary

<table>
<thead>
<tr>
<th>Key features</th>
<th>Your benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>• New design of the polyester fabric-based traction layer</td>
<td>• No re-tensioning required after installation with adequate initial tension</td>
</tr>
<tr>
<td>• Excellent dimensional stability</td>
<td>• Reduced machine downtimes</td>
</tr>
<tr>
<td>• No sensitivity to changing ambient humidity</td>
<td>• Consistent rpm</td>
</tr>
<tr>
<td></td>
<td>• Uniform yarn quality</td>
</tr>
<tr>
<td></td>
<td>• High machine performance</td>
</tr>
<tr>
<td></td>
<td>• Low operating costs</td>
</tr>
<tr>
<td>• Bonding system with improved temperature resistance</td>
<td>• Belt can cope with demanding climatic conditions, e.g. with hot and humid environments in Asia</td>
</tr>
<tr>
<td></td>
<td>• Long belt service life</td>
</tr>
<tr>
<td>• Durable and abrasion resistant high-performance elastomer cover</td>
<td>• Reliable and consistent grip</td>
</tr>
<tr>
<td>• Constant coefficient of friction</td>
<td>• Consistent rpm</td>
</tr>
<tr>
<td>• Excellent flex-fatigue properties</td>
<td>• Uniform yarn quality</td>
</tr>
<tr>
<td></td>
<td>• High machine performance</td>
</tr>
<tr>
<td></td>
<td>• Long belt service life</td>
</tr>
<tr>
<td>• Good belt tracking</td>
<td>• No re-adjustments required</td>
</tr>
<tr>
<td></td>
<td>• Trouble-free machine operation</td>
</tr>
<tr>
<td></td>
<td>• Reduced machine downtimes</td>
</tr>
<tr>
<td></td>
<td>• High machine performance</td>
</tr>
<tr>
<td>• Good longitudinal flexibility</td>
<td>• Low energy consumption</td>
</tr>
<tr>
<td>• Excellent flex-fatigue properties</td>
<td>• Long belt service life</td>
</tr>
<tr>
<td>• Adhesive-free joining method</td>
<td>• Easy on-site joining</td>
</tr>
<tr>
<td>• Durable joint with excellent flex-fatigue properties</td>
<td>• Low maintenance costs</td>
</tr>
<tr>
<td></td>
<td>• Long belt service life</td>
</tr>
</tbody>
</table>

**In brief:** high machine performance, long belt life and low lifecycle costs. The belt is particularly suitable for ring spinning machines and draw frames.

![Ring spinning machine](#)

![Draw frame (extract)](##)
TC-25EFQ
The new benchmark for reliability and performance

Dimensional stability and excellent layer adhesion

The TC-25EFQ provides outstanding dimensional stability and best-in-class strength. According to the test users, no re-tensioning was required. The competitor benchmark product required re-tensioning 1 to 3 times on the same installation, leading to additional downtime costs. The TC-25EFQ has:
- a 30% higher k1% after running-in (ari) than our predecessor product TC-20EFQ
- an 8% higher k1% ari value than the measured value of the competitor’s benchmark product

The new bonding agent of the TC-25EFQ features superior layer adhesion, as well as excellent dynamic properties and temperature resistance. The product is particularly suitable for demanding climatic conditions.
- The layer adhesion of the TC-25EFQ slightly increased during the dynamic test. Measured after 45 million bending cycles, the layer adhesion of the TC-25EFQ increased by 14% between room temperature and 80 °C. This reflects the excellent temperature resistance of the new bonding agent
- At room temperature and measured after 45 million bending cycles, the TC-25EFQ had 43% higher layer adhesion than the competitor benchmark product
- At 80 °C and measured after 45 million bending cycles, the TC-25EFQ had over 4 times higher layer adhesion than the predecessor product TC-20EFQ
- At 80 °C and measured after 45 million bending cycles, the TC-25EFQ had 58% higher layer adhesion than the competitor benchmark product

RT = Room temperature
*) Adhesion values of new samples
**) Adhesion values measured after destruction tester (45 million bending cycles)
TC-25EFQ
The new benchmark for reliability and performance

Cross-section

1. Rough structure on yellow side
2. Polyester traction layer
3. Fine structure on black side

Apart from the surface structure and color, the product is symmetrical.

Technical key data

<table>
<thead>
<tr>
<th>Type</th>
<th>Thickness</th>
<th>k1% after running-in</th>
<th>Color of pulley side</th>
<th>Color of opposite side</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC-25EFQ</td>
<td>2.0</td>
<td>13</td>
<td>Yellow</td>
<td>Black</td>
</tr>
</tbody>
</table>

Ring spinning application driven by tangential belt
Customers first
Your success is our goal. That is why we don’t just offer products; we provide solutions. As committed partners to our customers, we are dedicated to sharing our knowledge and providing full support.

Since our founding in 1946, Habasit has been finding ways to meet customer-specific needs in every application. This is what differentiates us as the #1 worldwide belting provider in the industry today.

Comprehensive consulting and technical support
Profit from the best consulting and technical support in the lightweight belting industry. Local experts are always available to assist you with your belting needs. The Habasit team is proud to provide the highest level of support, together with top-quality products that have led the global market for decades.

Belt selection and calculation assistance
We are always glad to help you select the most suitable belt for any application for your convenience. We now also provide the free online tool ‘SeleCalc’ which allows you to easily make selections and calculations yourself. Simply register online at selecalc.habasit.com.

Fabrication, assembly and local installation services
As a full-service belting provider, we offer joining and assembly services either at our own locations or directly on your equipment.

Habasit has over 30 affiliates worldwide, each with its own inventory, fabrication, assembly and service facilities.

Together with representative offices and numerous qualified distributors, we can react quickly and efficiently to meet all your needs.

Customer training programs
To ensure the optimal performance and maximum lifespan of all our products, we offer training programs and various support tools. This includes proper procedures for fabrication, installation, assembly, maintenance and belt repair, all of which take place at a Habasit site or at your location.

Belt monitoring, inspections, analyses and process optimization proposals
We organize and handle belt maintenance, inspections, analyses and surveys at customers' sites. Upon request, we are ready to develop optimization proposals to ensure you’re getting maximum value from your machinery and process output.

Design assistance for customized solutions
Habasit believes in building partnerships with our customers. Our engineering team will work closely with your engineers on joint design developments from initial design to final implementation. This expert service can be invaluable for projects involving new technologies or large-scale modifications and adaptations.
Committed to innovation
Because our customers’ belting challenges and needs are always changing, we consistently invest a substantial amount of labor and resources into the research and development of new products and solutions.

Certified for quality
We deliver the highest quality standards not only in our products and solutions, but also in our employees’ daily work processes. Habasit AG is certified according to ISO 9001:2015.

Worldwide leading product range
Habasit offers the largest selection of belting, conveying, processing and complementary products in the industry. Our response to any request is nothing less than a specific, tailor-made solution.

**HabaFLOW®**
Fabric-based conveyor and processing belts

**HabasitLINK®**
Plastic modular belts

**Habasit® Cleandrive**
Monolithic reinforced conveyor belts

**HabaDRIVE®**
Power transmission belts

**HabaSYNC®**
Timing belts

**HabaCHAIN®**
Chains (slat and conveyor chains)

**Machine tapes**

**Round belts**

**Seamless belts**

**HabiPLAST**
Profiles, Guides, Wear strips

**Accessories**
(sprockets, flights, welding profiles, etc.)

**Fabrication tools**
(joining, cutting & preparing devices)