## Habasit – Solutions in motion



# TC-25EFQ

# The benchmark for performance



The new TC-25EFQ 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.

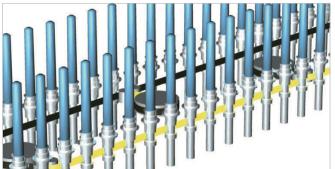
The new belt features an adhesive-free joining method, outstanding dimensional stability, and excellent flex-fatigue properties and reliability. Customers benefit from a long belt life and high machine performance.

# The new benchmark for reliability and 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





- 1 Belt pulley side
- 2 Opposite site

### Installation

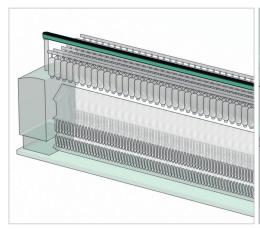
- The yellow side features high-performance rubber and must be used as the pulley side in order to achieve the best results.
- The black side (i.e. the opposite side) is optimized for antistatic properties.
- On the Omega drive, the yellow side is the pulley side, which is in contact with the driving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

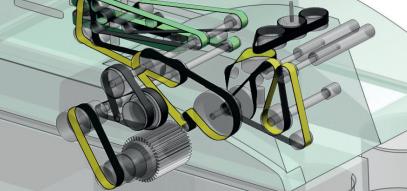
# The new benchmark for reliability and performance

## Performance summary

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

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



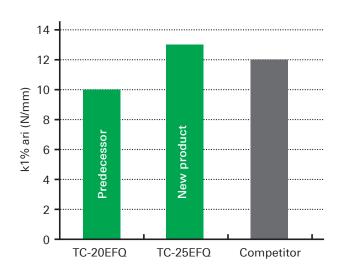


Ring spinning machine

Draw frame (extract)

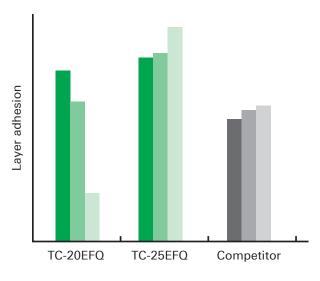
# The new benchmark for reliability and performance

### 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



- Layer adhesion at RT new \*)
- Layer adhesion at RT after test \*\*)
- Layer adhesion at 80° after test \*\*)

RT = Room temperature

- \*) Adhesion values of new samples
- \*\*) Adhesion values measured after destruction tester (45 million bending cycles)

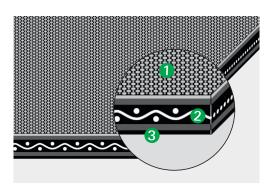
The new bonding agent of the TC-25EFQ features superior layer adhesion, as well as excellent dynamic properties and temperature resistance.

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

# The new benchmark for reliability and performance

## **Cross-section**



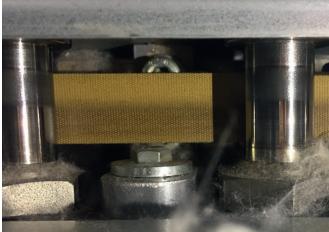
- 1 Rough structure on yellow side
- 2 Polyester traction layer
- 3 Fine structure on black side

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

## Technical key data

Туре	Thickness		k1% after running-in		Color of	Color of
	mm	inch	N/mm	inch	pulley side	opposite side
TC-25EFQ	2.0	0.079	13	74	Yellow	Black





Ring spinning application driven by tangential belt

# Solutions in motion

#### **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.



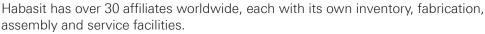
#### Belt selection and calculation assistance

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.





Together with representative offices and numerous qualified distributors, we can react



## Customer training programs

quickly and efficiently to meet all your needs.

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.



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)



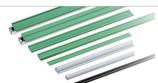
Machine tapes



Round belts



Seamless belts



**HabiPLAST** Profiles, Guides, Wear strips



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



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

#### Australia

Habasit Australia Pty Ltd. Silverwater, Sydney Phone: +61 1300 945 455 www.habasit.com.au

#### Austria

Habasit GmbH, Wiener Neudorf Phone: +43 1 690 66 www.habasit.at

#### Belgium & Luxembourg

Habasit Belgium N.V., Zaventem Phone: +32 27 250 430 www.habasit.be | habasit.lu

#### Brazil

Habasit do Brasil, Barueri - SP Phone: +55 11 4789 9022 www.habasit.com.br

#### Canada

Habasit Canada Ltd., Oakville Phone: +1 905 827 41 31 www.habasit.ca

#### China

Habasit East Asia Ltd. Fotan, Shatin, N.T., Hong Kong Phone: +852 2145 0150 www.habasit.com.hk

Habasit (Shanghai) Co. Ltd. Shanghai Phone: +8621 5488 1218 www.habasit.com.cn

#### France

Habasit France SAS, Mulhouse Phone: +33 3 89 33 89 03 www.habasit.fr

#### Germany

Habasit GmbH, Eppertshausen Phone: +49 6071 969 0 www.habasit.de

#### India

Habasit India, Coimbatore Phone: +91 422 666 78 00 www.habasit.in

#### Italy

Habasit Italiana SpA Customer Care: 0438 911333 For int. calls: +39 0438 911444 www.habasit.it

#### Japan

Habasit Nippon Co., Ltd., Tokyo Phone: +81 120 07 6339 www.habasit.co.jp

#### Korea (Republic of)

Habasit Korea Ltd., Seongnam Phone: +82 31 737 9370 www.habasit.co.kr

#### Mexico

Habasit Rocua, Zapopan Phone: +52 33 3824 2358 www.habasitrocua.mx

#### Netherlands

Habasit Netherlands BV, Nijkerk Phone: +31 332 472 030 www.habasit.nl

#### New Zealand

Habasit New Zealand Pty Ltd. Auckland Phone: 0800 000 070 www.habasit.co.nz

#### Nordic countries

Habasit AB, Hindås, Sweden Phone: +46 301 226 00 www.habasit.se

#### Poland

Habasit Polska Sp. z o.o. Dąbrowa Górnicza Phone: +48 32 639 02 40 www.habasit.pl

#### Russia

OOO Habasit Ltd. Moscow Region Phone: +7 495 966 1566 www.habasit.ru

#### Singapore

Habasit Far East Pte Ltd. Singapore Phone: +65 6862 5566 www.habasit.com.sg

#### South Africa

Habasit South Africa Pty Ltd. Gauteng Phone: +27 10 001 6770 www.habasit.co.za

#### Spain

Habasit Hispánica S.A. Barberá del Vallés Phone: +34 937 191 912 www.habasit.es

#### Switzerland

Habasit GmbH, Reinach Phone: +41 61 577 51 00 www.habasit.ch

#### Taiwan

Habasit (Taiwan) Ltd. New Taipei City Phone: +886 2 2267 0538 www.habasit.com.tw

#### Turkey

Habasit Kayis San. Ve Tic. Ltd. Sti., Istanbul Phone: +90 444 70 43 www.habasit.com.tr

#### Ukraine

Habasit Ukraine LLC., Kyiv Phone: +38 044 290 88 99 www.habasit.ua

### United Kingdom & Ireland

Habasit UK Ltd., Elland Phone: +44 333 207 6570 www.habasit.co.uk

#### USA

Habasit America Suwanee, Georgia Phone: +1 800 458 6431 www.habasitamerica.com

Habasit International AG Römerstrasse 1 CH-4153 Reinach, Switzerland Phone +41 61 715 15 15 Fax +41 61 715 15 55 www.habasit.com

Registered trademarks Copyright Habasit International AG Subject to alterations 4416.SRF.PTB-en1017HQR