Habasit – Solutions in motion

habasit

Habasit TC and TCF Power Transmission Belts

For Textile, Printing & Paper, Letter Sorting and Materials Handling

Description
With the highest standards of quality and an extensive variety of products, Habasit really gets things moving. Our high efficiency flat- and tangential belts are ideal for high power transmission, while further tasks are best fulfilled by spindle tapes, machine tapes and round belts. Seamless power transmission belts guarantee the highest degree of precision for specialized applications.

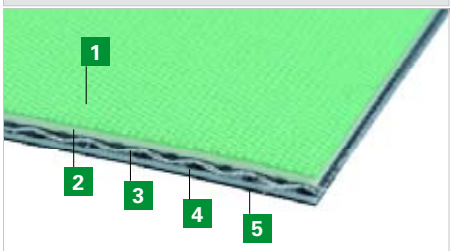
Your benefits
- Comprehensive product range meeting all customer requirements
- Suitable for a large variety of different applications
- Optimized technical solutions using most advanced materials and product design
- Outstanding price/value ratio
- Reduced energy consumption

The Right Choice
Overview

Habasit has developed a comprehensive range of thermoplastic power transmission belts that allows customers to choose the most suitable belt for their specific application requirements.

Power Transmission Belts

TC Polyester (PET)



1
- Light green
- Low-aging and abrasion resistant NBR rubber
- Rough or fine structure depending on belt type

2
- Intermediate thermoplastic foil (Hamid or TPU)

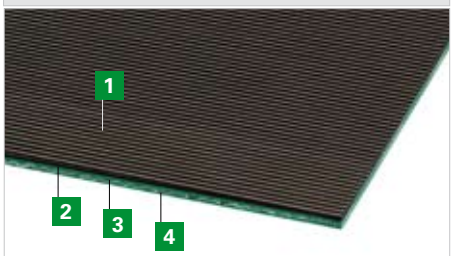
3
- Highly flexible polyester traction fabric

4
- Intermediate thermoplastic foil (Hamid or TPU)

5
- Black, antistatic
- Low-aging NBR rubber
- Rough structure

Application / drive configurations

TCF-xxEL



1
- Black, antistatic
- Low-aging NBR rubber
- Longitudinal groove structure

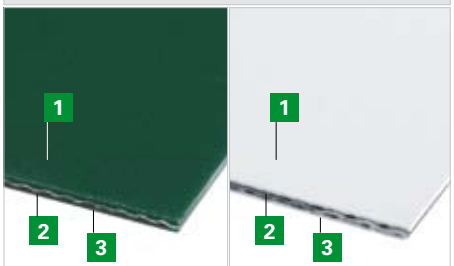
2
- Intermediate thermoplastic foil (Hamid)

3
- Highly flexible polyester traction fabric

4
- Green
- Hamid foil
- Fine structure

Application / drive configurations

TCF-xxH



1
- Dark green
- Thermoplastic polyurethane foil
- Fine structure

1
- White
- Hamid foil
- Fine structure

2
- Highly flexible polyester traction fabric

3
- Dark green
- Thermoplastic polyurethane foil
- Fine structure

3
- White
- Hamid foil
- Fine structure

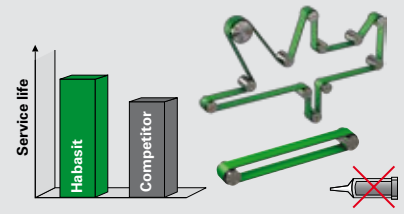
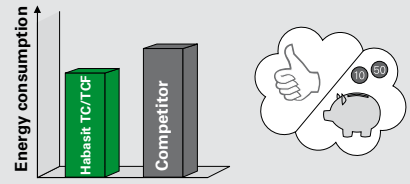
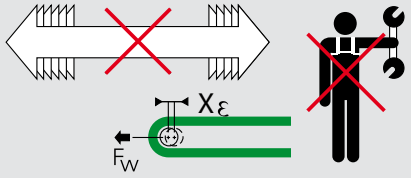
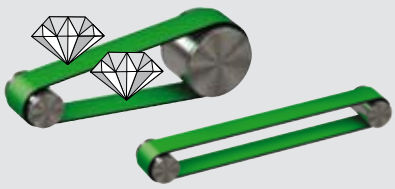
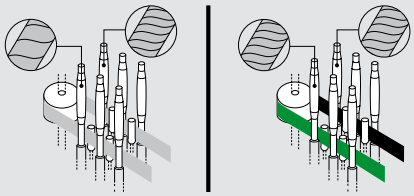
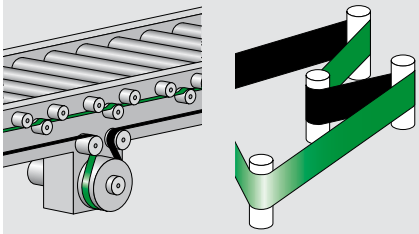
Application / drive configurations

Features and Benefits
The Unique TC and TCF Ranges

A product range with an outstanding price-to-value ratio

Habasit has developed the unique TC and TCF product ranges based on its experience, ongoing research, close contacts with the textile, printing & paper and materials handling industries, as well as long-term partnerships with leading machine manufacturers worldwide.

The result is a product range with an outstanding price-to-value ratio. PET power transmission belts (TC and TCF) are the perfect solution for compact driving configurations, serpentine drives and very high speeds.

	Features	Benefits
	• Very flexible belt • Uniform longitudinal flexibility thanks to adhesive-free joining system	• **Excellent resistance to flex fatigue** • **Belt can cope with small pulley diameters and compact design** • **Longest service life** • **Outstanding reliability**
	• Reduced energy consumption	• **Maximum efficiency** • **Economical production** • **Energy cost savings**
	• Stable modulus of elasticity • Low sensitivity to humidity	• **High dimensional stability** • **No retensioning** • **No downtimes**
	• Covers tailor-made for the application • Best-in-class abrasion resistance • Constant coefficient of friction	• **Most economic, application-oriented solution and optimized price/value ratio** • **Uniform driving conditions** • **Reliable conveying properties** • **Long belt life**
	• Constant and uniform yarn twist	• **Best yarn quality** • **Highest productivity**
	• Constant and uniform driving conditions	• **Highest throughput** • **Reliable sorting procedure**

Application Table
Belt Selection Guide and Technical Key Data (Selection Only)

Industry processes / Belt applications		TC and TCF Polyester power transmission belts (HabaDRIVE®)				
		TC-10EF	TC-20EF	TC-20/25EF	TC-35ER	T
General driving applications						
Driving belt		•	•	•	•	
Textile industry applications						
Tangential drive		•	•	•	•	
Rotor drive				•	•	
Combing roll drive			•	•	•	
Main drive		•	•	•	•	
Fan drive		•	•		•	
Dust cleaner belt			•		•	
Printing & paper						
Finishing systems / bookbinding		•	•	•		
Tube winder						
Tissue and diaper production		•	•			
Paper and cardboard converting, various kinds of applications		•	•	•	•	
Letter sorting						
Driving belts		•	•			
Materials handling						
Live roller conveyor		•	•		•	
Product construction/design						
Friction cover (material)		NBR	NBR	NBR	NBR	
Friction cover (surface structure)		Fine structure	Rough structure	Rough structure	Rough structure	Ro
Friction cover (color)		Black	Black	Black	Black	
Traction layer (material)		PET	PET	PET	PET	
Reverse cover (material)		NBR	NBR	NBR	NBR	
Reverse cover (surface structure)		Fine structure	Fine structure	Fine structure	Rough structure	Ro
Reverse cover (color)		Light green	Light green	Light green	Light green	L
Product characteristics						
Drive determination		DSPT	DSPT	DSPT	DSPT	
Permanently antistatic		Yes	Yes	Yes	Yes	
Technical key data						
Thickness	[mm] *[in.]*	1.8 *0.07*	2 *0.08*	2.5 *0.1*	2.5 *0.1*	
Pulley diameter minimum with counterflection	[mm] *[in.]*	25 *1*	25 *1*	50 *2*	50 *2*	
Tensile force for 1% elongation (k1% after running-in) per unit of width (Habasit standard SOP3-013)	[N/mm] *[lbs./in.]*	5 *29*	10 *57*	11 *63*	18 *103*	
Nominal peripheral force per unit of width	[N/mm] *[lbs./in.]*	10 *57*	21 *120*	23 *131*	38 *217*	
Operating temperature, admissible (continuous)	[°C] *[°F]*	-20/70 *-4/158*	-20/70 *-4/158*	-20/70 *-4/158*	-20/70 *-4/158*	
Seamless manufacturing width	[mm] *[in.]*	1100 *43*	1100 *43*	1100 *43*	1100 *43*	
Joining system						
Thermofix						
Flexproof		•	•	•	•	
Stepflex						
Quickmelt						
Mechanical						
		TC-10EF	**TC-20EF**	**TC-20/25EF**	**TC-35ER**	**T**

Remarks

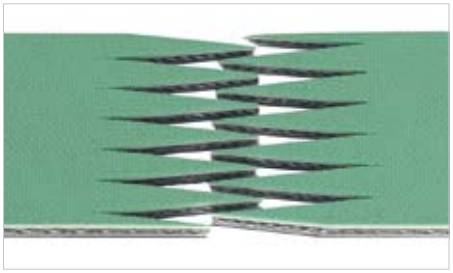
- This application / belt matrix is not exhaustive and serves an indication of potential solutions. For detailed material and belt selection please contact your local Habasit partner
- All data are approximate values under standard climatic conditions: 23°C / 73°F, 50% relative humidity (DIN 50005 / ISO 554), and are based on the Habasit Master Joining Method

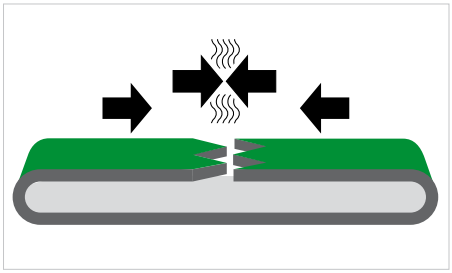
TC-35/30ER	TC-35/35ER	TC-55ER	TCF-20EL	TCF-35EL	TCF-55EL	TCF-20H	TCF-50H
•	•	•	•	•	•	•	•
•	•	•					
•	•	•	•	•	•		
		•	•	•	•		
			•				
•	•						
			•			•	
•	•		•			•	
						•	
		•	•	•	•	•	•
NBR	NBR	NBR	NBR	NBR	NBR	TPU	Hamid
ugh structure	Rough structure	Rough structure	Longitudinal groove structure	Longitudinal groove structure	Longitudinal groove structure	Fine structure	Fine structure
Black	Black	Black	Black	Black	Black	Dark green	White
PET	PET	PET	PET	PET	PET	PET	PET
NBR	NBR	NBR	Hamid	Hamid	Hamid	TPU	Hamid
ugh structure	Rough structure	Rough structure	Fine structure	Fine structure	Fine structure	Fine structure	Fine structure
Light green	Light green	Light green	Green	Green	Green	Dark green	White
DSPT	DSPT	DSPT	OSPT	OSPT	OSPT	DSPT	DSPT
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3.0	3.5	3.0	2.6	3.0	3.5	1.5	2
0.12	*0.14*	*0.12*	*0.1*	*0.12*	*0.14*	*0.06*	*0.08*
50	70	70	80	100	150	25	60
2	*2.8*	*2.8*	*3.1*	*4*	*6*	*1*	*2.4*
18	18	25	10	18	25	10	24
103	*103*	*143*	*57*	*103*	*143*	*57*	*137*
38	38	53	21	38	53	20	48
217	*217*	*303*	*120*	*217*	*303*	*114*	*274*
-20/70	-20/70	-20/70	-20/70	-20/70	-20/70	-20/70	-20/70
-4/158	*-4/158*	*-4/158*	*-4/158*	*-4/158*	*-4/158*	*-4/158*	*-4/158*
1100	1100	1100	1100	1100	1100	1100	1100
43	43	*43*	*43*	*43*	*43*	*43*	*43*
•	•	•	•	•	•	•	•
TC-35/30ER	TC-35/35ER	TC-55ER	TCF-20EL	TCF-35EL	TCF-55EL	TCF-20H	TCF-50H

Legend

DSPT	= Double-sided power transmission
Hamid	= Habasit thermoplastic compound
NBR	= Acrylonitrile-Butadiene-Rubber
OSPT	= One-sided power transmission
PET	= Polyester
TPU	= Polyurethane thermoplastic
Transp.	= Transparent (clear)
Waffle struct.	= Waffle structure
•	applicable
	conditionally applicable
–	not applicable

Fabrication
Joining Method, Tools and Installation





Fabrication
All TC- and TCF- belt types can be joined with the adhesive-free Flexproof method.

The Flexproof joining method stands for
- Simple handling steps
- Fast execution/joining

The Flexproof joining benefits are
- Easy handling
- Adhesive-free joint = high belt flexibility
- Minimum equipment needed
- Short machine downtimes

Tools, fabrication tools and auxiliaries
Offering superior fabrication capabilities is a key element in Habasit's service concept. Fabrication can take place either in the facilities of the belt supplier or on-site at the end-user. The joining can be done either by the customer or by Habasit's on-site service.These two approaches are based on two different principles. Habasit provides solutions for both: a well-adapted range of joining tools / systems and an extensive service network.

Installation services

Tools for on-site fabrication
Because we understand your processes, we can support you with cost-effective high-quality tools that keep your equipment up and running. In case of emergencies our tools will help you to minimize downtimes and efficiently support the joining process. Habasit offers zig-zag cutting devices to prepare polyester power transmission belts. A selection of hot pressing devices to fit your applications and to guarantee optimum quality complement the tool package.

On-site installation service
In cases where it is not economical to have the tools ready on-site, you can rely on a nearby Habasit affiliate or service partner who will provide the equipment necessary for the required fabrication and installing service.

The Habasit Solution

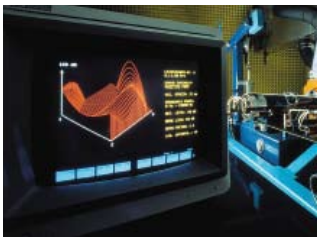
At Habasit, we listen to our customers, innovate continuously and deliver reliable solutions to meet your every need.

Customers come first

At Habasit we understand that our success depends on your success. This is why we offer solutions, not just products; partnership, not just sales.
Since our foundation in 1946, Habasit has brought this understanding of customer needs to life every day and for every application.
That's why we're the No. 1 in belting today. Worldwide.


Committed to innovation

Habasit is strongly committed to the continuous development of innovative, value-added solutions. Over 3% of our staff are dedicated exclusively to R&D, and our annual investment in this area exceeds 8% of turnover.




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 9001:2000.

Worldwide leading product range

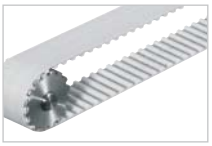
Habasit offers the largest selection of belting, conveying, processing and complementary products in the industry. Our response to any request is nothing less than a specific, tailor-made solution.

A selection of our product ranges:

HabaFLOW®
Fabric based conveyor and processing belts

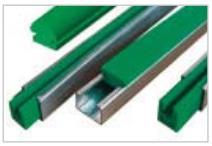
HabasitLINK® & KVP®
Plastic modular belts

HabaDRIVE®
Power transmission belts

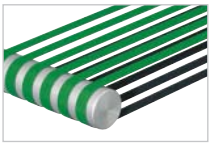


HabaSYNC®
Timing belts

HabaCHAIN®
Chains (slat and conveyor chains)

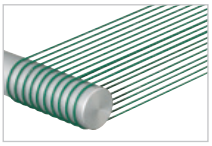


HabiPLAST®
Profiles
Guides
Wear strips



Machine tapes

Seamless belts



Round belts

Fabrication tools (joining tools)

Gear reducers
Gearmotors
Motion control

Electric motors

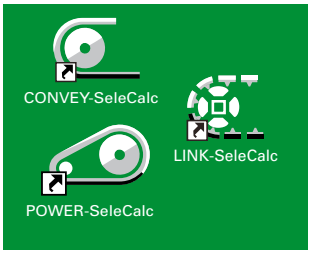
Worldwide support

Our extensive organization is ready to support you anywhere in the world. Engineering and emergency assistance, quotes and order status are just a phone call away. Wherever you are. Whenever you need us.

For additional information please visit: www.habasit.com

Services

Consulting and technical support
Habasit offers the best consulting and technical support on the belting market. Everything revolves around our customers. Each affiliate has its own experts. The Habasit team proudly provides the highest levels of support and top-quality products enjoyed by the global market for over 60 years.



Assistance with selection and calculation
We will select and calculate the most suitable belt for your specific application. You also may do this yourself with our state-of-the-art Habasit selection and calculation program "SeleCalc."
POWER-SeleCalc = Power transmission belt selection and calculation
CONVEY-SeleCalc = Fabric conveyor belt selection and calculation
LINK-SeleCalc = Plastic modular belt selection and calculation

Customer training programs
Habasit offers training programs and provides support tools to ensure optimal use of our products and to prolong their lifecycles. Training on fabrication, installation, assembly, maintenance and belt repair takes place at Habasit sites or at your location.

Belt monitoring, inspections, analyses and process optimization proposals
We organize and handle belt maintenance, inspections, analyses and surveys for your locations. On request we will also work with you to develop optimization proposals, e.g. to achieve added value from the machinery or process output.

Design assistance for customized solutions
Habasit believes in partnership. Our engineering team will work closely with your engineers on joint design developments, preferably from a very early stage. We particularly recommend this for projects involving new technologies or large-scale modifications and adaptations.

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Printed in Switzerland

Pub. Data
4076FLY.PTB-en0208HQR