

Elastomer Covered High-Duty Conveyor and Processing Belts



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Elastomer covered high-duty conveyor and processing belts

Many industry applications require more than simply a belt that moves goods from A to B. Their demanding production processes and environmental parameters need special features to ensure stable processing and optimal belt performance.

Habasit elastomer covered high-duty conveyor and processing belts offer enhanced mechanical and thermal robustness, as well as chemical resistance, based on a large variety of cover materials, strength classes and surface structures. The belts are suitable for a wide range of applications in various industries, including materials handling, paper manufacturing, paper and board converting or packaging. The belts support efficient and economic processes, and feature high abrasion resistance, a consistent coefficient of friction, and a long belt life.



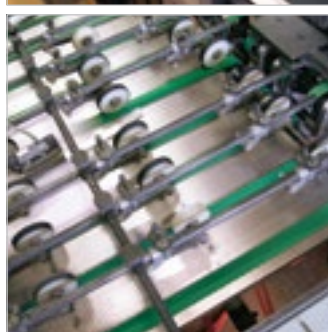
Paper manufacturing, processing and converting

High-speed processes and a sensitive, sometimes heavy product, combined with frequently changing ambient temperatures and humidity, call for outstanding belt features to ensure high quality results in paper production and converting.

Useful belt features	Your benefits
High abrasion resistance	- Reliable conveying properties - No wear debris on your products - Long belt life
Consistent coefficient of friction	- Reliable conveying properties over time - Precise processing - No marking of printed products - High and consistent machine throughput - Long belt life – low lifecycle costs
Dimensionally stable in changing ambient humidity	- No retensioning required - Reduced machine downtimes

Belt examples: The HAT-5E 15 and HAT-15E are frequently installed to take advantage of their outstanding reliability.

For details and additional belt options, please refer to the industry and features tables on pages 7–9.



Paper printing and finishing

Debris from a process belt or marking and scratching can easily ruin or at least reduce the quality of your printing and finishing results. Using the right belt not only delivers first-class results, it reliably supports your processes over time.

Useful belt features	Your benefits
High abrasion resistance	- Reliable conveying properties - No wear debris on your products - Long belt life
Consistent coefficient of friction	- Reliable conveying properties over time - Precise processing - No marking of printed products - High and consistent machine throughput - Long belt life – low lifecycle costs
Resilient	- Forgiving in cases of short-term overloads - Copes with demanding application conditions, e.g. acceleration forces, 'stop and go' operations - No retensioning when installed with adequate tension – reduced machine downtimes

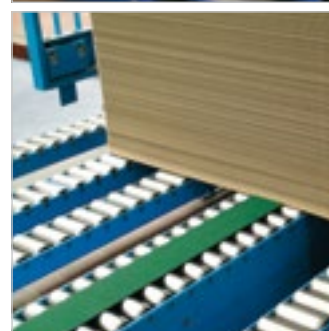
Belt examples: The abrasion resistant surface of the HAM-5P, HAT-8P and EAT-8P supports superior finishing results, without leaving marks or debris.

For details and additional belt options, please refer to the industry and features tables on pages 7–9.

Folding carton and corrugated board converting

Product surfaces in the board converting industry, such as laminated folding carton, can be sensitive to marking and debris on the belt. High abrasion resistance prevents the belt from marking your products and prolongs the belt lifetime.

Useful belt features	Your benefits
High abrasion resistance	- Reliable conveying properties - No wear debris on your products - Long belt life
Constant coefficient of friction	- Reliable conveying properties over time - Precise processing - No marking of printed products - High and consistent machine throughput - Long belt life – low lifecycle costs
High coefficient of friction surface	- Reliable grip even for laminated cardboard - Precise processing



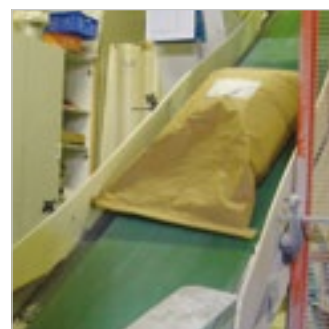
Belt examples: With their high abrasion resistance and constant coefficient of friction, the HAT-8P, HAT-12P, HAT-18PWPD, and HAT-24PWPD are ideal for folding carton and corrugated board processing.

For details and additional belt options, please refer to the industry and features tables on pages 7–9.

Distribution centers

In distribution centers, belts often transport a wide variety of products in terms of shape, size, weight and surfaces. At the same time, space is limited, so a high and consistent coefficient of friction not only guarantees smooth transport of all the different goods, but also reliably supports incline or decline applications.

Useful belt features	Your benefits
High coefficient of friction surface	- Supports steep inclines with angles from 30° to 45° - Belt does not require cleats=> easier to clean - Small footprint for installation of steep incline requires less space
Constant coefficient of friction	- Reliable conveying properties over time - Precise processing of transported goods - High throughput and sorting performance - Long belt life – low lifecycle costs
Robustness	Copes with rough working conditions, e.g. in parcel and tray handling



Belt examples: The structured surface of the SAG-12E and HAL-12E gives outstanding grip and makes these belts the perfect choice for inclines or declines.

For details and additional belt options, please refer to the industry and features tables on pages 7–9.



Materials handling and general conveying

Transporting goods between production stages or to and from warehousing can offer a variety of challenges. Since this is not usually part of the core process, it is often given little attention, although having a reliable and strong belt to meet all requirements is essential.

Useful belt features	Your benefits
• High abrasion resistance	• Reliable conveying properties • Long belt life
• Constant coefficient of friction	• Reliable conveying properties over time • Precise processing • High and consistent machine throughput • Long belt life – low lifecycle costs
• Robustness	• Copes with rough working conditions

Belt examples: The HAG-12E and HAR-12E provide all the features needed to make them a reliable choice for many different transportation applications.

For details and additional belt options, please refer to the industry and features tables on pages 7–9.



Recycling of aluminum cans, glass and plastic bottles

Belts in reverse vending machines and other recycling processes often have to withstand liquids or oil residues. The alternating transport of different types of goods, such as glass or plastic bottles as well as cans, means that strong and durable belts are needed to ensure steady operation.

Useful belt features	Your benefits
• High abrasion resistance	• Reliable conveying properties • Long belt life
• Constant coefficient of friction	• Reliable conveying properties over time • Precise processing of transported goods • High throughput and sorting performance • Long belt life – low lifecycle costs
• Dimensionally stable in changing ambient humidity	• No retensioning • Reduced machine downtimes

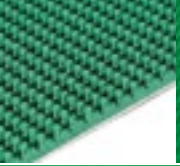
Belt examples: The HAB-12E copes perfectly with demanding conditions and continuous start-stop operation in reverse vending machines.

For details and additional belt options, please refer to the industry and features tables on pages 7–9.

Application / Product Range This application/belt matrix does not claim to be complete and serves only as an indication of potential solutions. For detailed material and belt selection help, please contact your local Habasit partner or visit: www.habasit.com													
	HAT-5E 15	HAT-15E	HAM-5P	HAT-8P	EAT-8P	HAT-12P	HAT-18PWP	HAT-24PWP	HAB-12E	HAG-12E	HAR-12E	SAG-12E	HAL-12E
Industries													
Paper manufacturing, general conveying and processing	●	●	●	●	●	●	●			●	●		
Paper printing and finishing	●		●	●	●								
Paper converting, tissue manufacturing	●	●	●	●	●	●			●				
Cardboard converting, feeder and processing	●	●		●	●	●	●	●		●	●		
Packaging	●		●	●	●	●			●	●	●		
Materials handling, distribution centers										●	●	●	●
General conveying	●	●	●	●	●	●	●	●		●	●	●	●
Industrial automation	●								●				
Automotive, steel processing				●	●	●	●	●		●	●		●
Wood				●	●	●	●	●		●	●		●
Electronics					●								
Recycling aluminum cans, glass and plastic bottles									●				
Specific applications													
Incline belt										●		●	●
Decline belt										●		●	●
Power turn belt											●		
Machine tape			●										

- Recommended belt type

Application / Product Range This application/belt matrix does not claim to be complete and serves only as an indication of potential solutions. For detailed help with material and belt selection, please contact your local Habasit partner or visit: www.habasit.com	Elastomer covered conveyor belt with thermoplastic belt body		Elastomer covered conveyor belt with PA or PET fabric traction layer		
	The versatile conveyor belt, processing belt, and machine tape, with excellent consistency of grip and flex-fatigue properties		The versatile, robust and forgiving conveyor belt, processing belt, and machine tape		
	HAT-5E 15	HAT-15E	HAM-5P	HAT-8P	EAT-8P
Material					
Elastomer cover material on conveying side	NBR	NBR	NBR	NBR	NBR
Traction layer material	PET	PET	PA	PA	PA
Conveying side surface					
Structure	Rough textile structure	Rough textile structure	Matt	Rough textile structure	Rough textile structure
Features					
Abrasion resistant	•	•	•	•	•
Constant coefficient of friction	•	•	•	•	•
High coefficient of friction surface	•	•	•	•	•
Outstanding flex-fatigue	•	•	•		
Robustness				•	•
Forgiving in case of short-term shock like overloads			•	•	•
Humidity variation resistant	•	•			
Antistatically equipped	•	•	•	•	
Static conductive					•
Adhesive-free joining	•	•			
Oil resistant		•		•	
Ozone resistant					
UV resistant					
Versatile	•		•	•	
Powerturn suitable					
Min. admissible belt temperature	0 °C / 32 °F	-30 °C / -22 °F	-20 °C / -4 °F	0 °C / 32 °F	0 °C / 32 °F
Max. admissible belt temperature	80 °C / 176 °F	100 °C / 212 °F	100 °C / 212 °F	100 °C / 212 °F	100 °C / 212 °F

			The versatile, robust and forgiving conveyor and processing belt, with high and excellent grip consistency			The robust and forgiving conveyor and processing belt with the highest grip of excellent consistency	
HAT-12P	HAT-18PWP	HAT-24PWP	HAB-12E	HAG-12E	HAR-12E	SAG-12E	HAL-12E
							
NBR	NBR	NBR	NBR	NBR	NBR	EPDM	EPDM
PA	PA	PA	PET	PET	PET	PET	PET
Rough textile structure	Rough textile structure	Rough textile structure	Smooth	Grip structure	Rough textile structure	Grip structure	Longitudinal groove structure
•	•	•	•	•	•		
•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•
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			•	•	•	•	•
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•	•	•	•	•	•		
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						•	
•	•	•		•	•		
					•		
0 °C / 32 °F	0 °C / 32 °F	0 °C / 32 °F	0 °C / 32 °F	0 °C / 32 °F	-20 °C / -4 °F	-30 °C / -22 °F	-30 °C / -22 °F
100 °C / 212 °F	100 °C / 212 °F	100 °C / 212 °F	80 °C / 176 °F	100 °C / 212 °F	100 °C / 212 °F	100 °C / 212 °F	100 °C / 212 °F

Polyamide (PA) traction layer material

Advantages

- High strength
- High resilience
- High abrasion resistance
- High temperature resistance
- High resistance to solvents

Polyamides are commonly used in textiles, automobiles, carpets and sportswear due to their extreme durability and strength.

Polyester (PET) traction layer material

Advantages

- High strength
- High dimensional stability (not hygroscopic)
- Good resistance to most chemicals

In Habasit belts polyester fabrics are used as traction layer material.

Thermoplastic polyurethane (TPU)

Advantages

- High flexibility even at low temperatures
- Very good abrasion resistance
- Good resistance to fats and oils
- Odor-free (no migration of plasticizers)

In Habasit belts, TPU is often used in combination with the polyester fabric traction layer, as part of the belt body. It allows adhesive-free belt joining.

Polyurethane formulations cover an extremely wide range of stiffness, hardness, and density properties.

Nitrile butadiene rubber (NBR)

Advantages

- Works in a wide range of temperatures
- High and constant friction
- High abrasion resistance, even at increased temperatures
- No glazing
- Very good dynamic properties
- Resistant to oils and acids

Although its physical and chemical properties vary depending on the polymer's nitrile composition, this form of synthetic rubber is generally resistant to oil, fuel, and other chemicals (the more nitrile in the polymer, the higher the resistance to oils but the lower the flexibility of the material).

Nitrile rubber is more resistant than natural rubber to oils and acids.

Ethylene propylene (diene) terpolymer (EPDM)

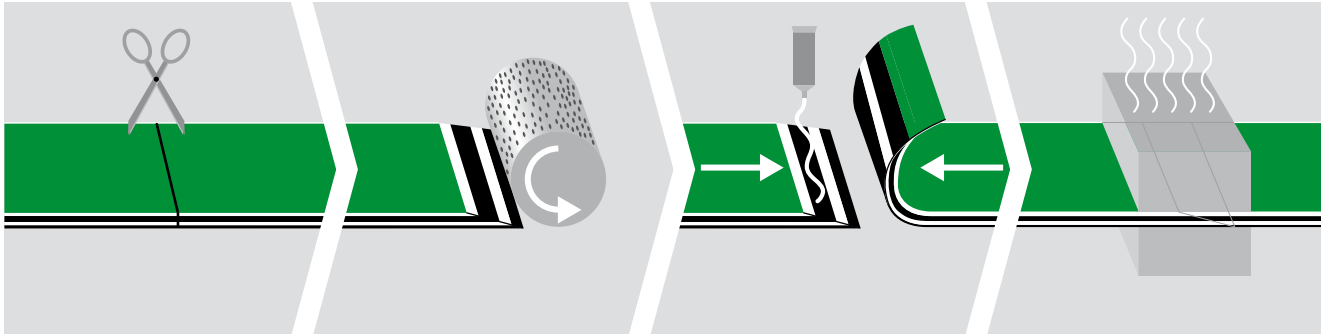
Advantages

- Outstanding heat, ozone and UV resistance
- High coefficient of friction, also at low temperatures
- No glazing
- High flexibility at low temperatures
- Suitable for outdoor applications

The main properties of EPDM are its outstanding resistance to heat, ozone and weather. It also has good resistance to polar substances and steam, and excellent electrical insulating properties.

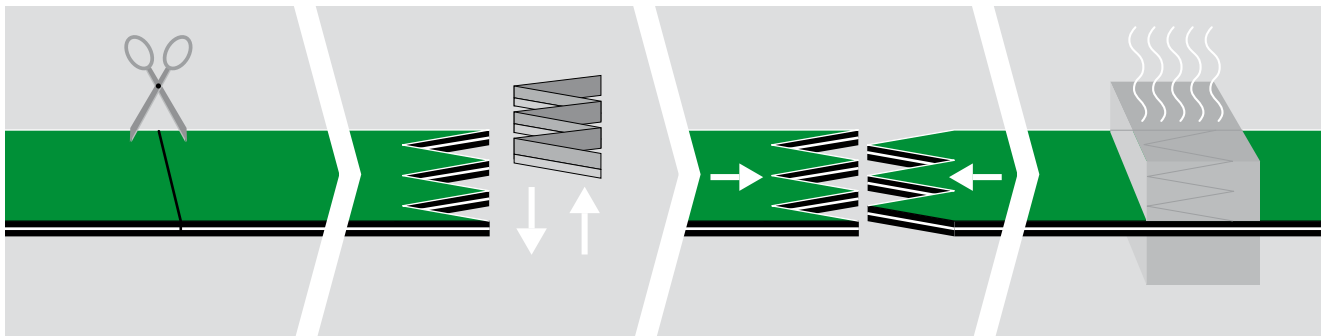
Thermofix joining with adhesives

The ends of the belt are skived to a wedge shape: one end of the belt from the top face, the second from the underside. Adhesives are applied on both skived surfaces, which are then placed over each other. The contact points are joined using heat and pressure.



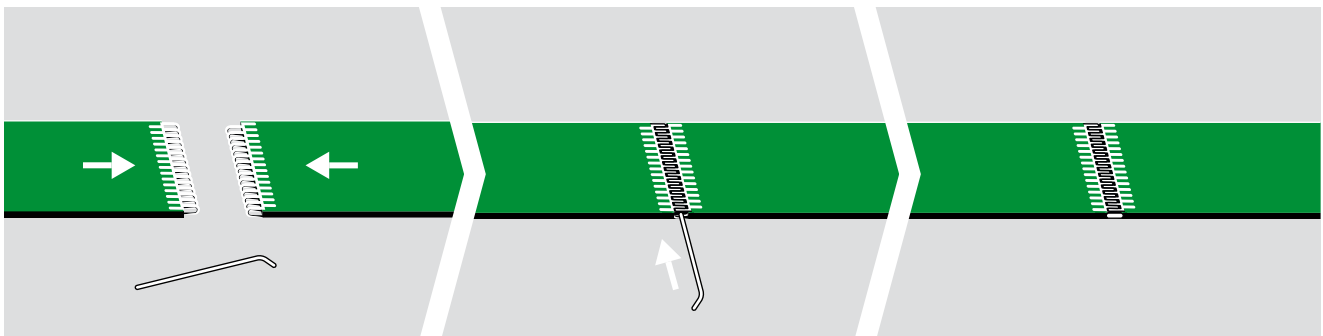
Flexproof adhesive-free joining

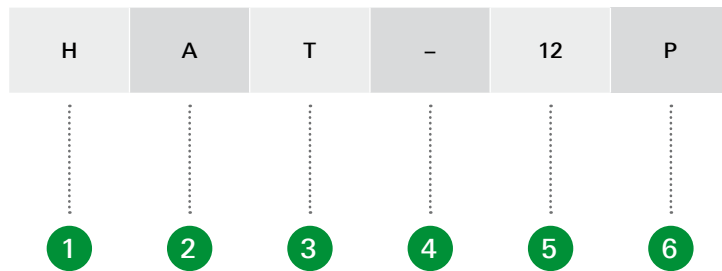
Flexproof is a fusion joint. The belt ends are cut in a finger pattern. They are then matched together in a hot pressing device, then hot pressed, which fuses (welds) the lowest-melting thermoplastic elements of the belt together.



Mechanical joint-lacing

This uses mechanical fasteners in the form of plastic spiral lacing or a wide range of metal fasteners. These are suitable for low speeds and allow quick on-site installation with a minimum of equipment.





1 Code digit – product group

H	High-duty conveyor and processing belts
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2 Code digit – properties of the conveying side

A	Adhesive
M	Medium adhesive
N	None – adhesive
S	Super adhesive

3 Code digit – surface structure of the conveying side

B	Blank / smooth
G	Grip structure
M	Matt
R	Rough textile structure
T	Textile structure

4 Interruption (= reading aid)

5 Code digit – strength/class of tensile force

6 Code digit – traction layer material

E	Polyester
P	Polyamide

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.

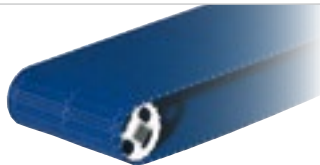


Worldwide leading product range

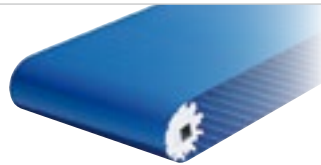
Habasit offers the largest selection of belting, conveying, processing and complementary products in the industry. Our response to any request is nothing less than a specific, tailor-made solution.



HabaFLOW®
Fabric-based conveyor and processing belts



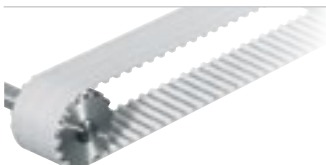
HabasitLINK®
Plastic modular belts



Habasit® Cleandrive
Monolithic reinforced conveyor belts



HabaDRIVE®
Power transmission belts



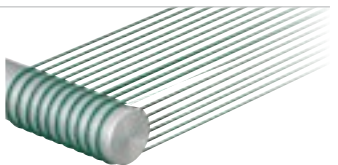
HabaSYNC®
Timing belts



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)

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