



Habasit Cleanline® The new generation of food belting

Habasit–Solutions in motion



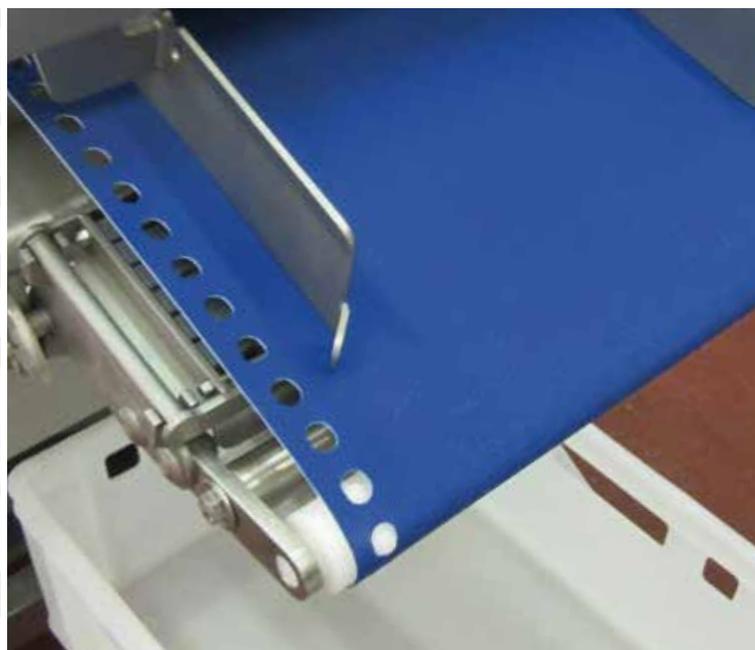
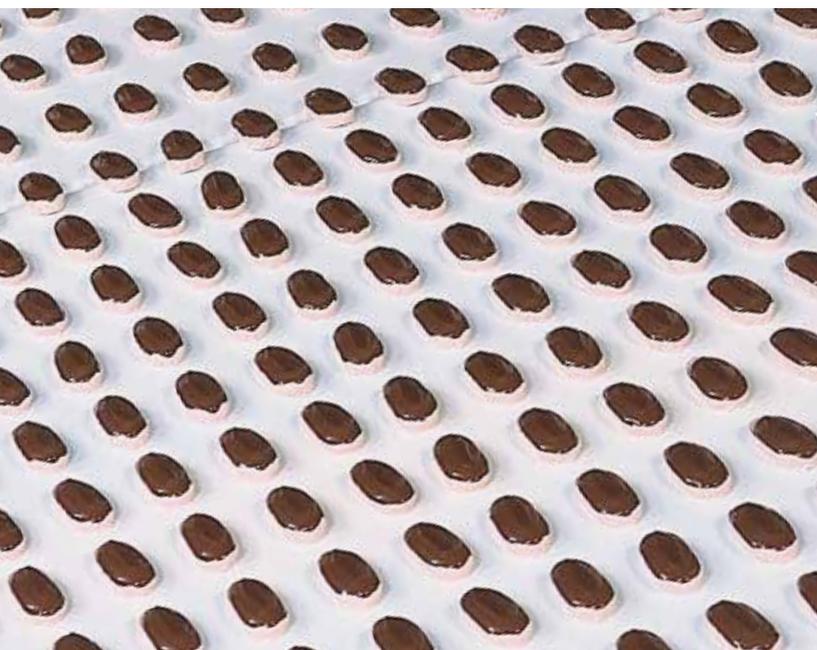
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Since its initial introduction, the Habasit Cleanline® range has developed a strong position, especially in the food market, due to its key features such as:

- Excellent release of sticky foodstuffs
- Excellent chemical resistance and cleanability
- Good longitudinal flexibility

While exceeding the performance of typical thermoplastic polyolefin (TPO) coated products, the belts were somewhat limited by the inherent low wear resistance of the surface coating material.

Intense development efforts thus focused on increasing the wear and abrasion resistance of Habasit Cleanline® while not losing the unique features of TPO coating.

As a result Habasit now introduces the **Habasit Cleanline® Generation II**.

This new generation of Habasit Cleanline® belts provides:

- Substantially increased surface wear resistance exceeding the durability of products with, for example, a TPU/silicone blend, which is also used for its good release and good surface wear properties
- An improved surface that now tolerates the use of scrapers made from TPU

What's behind Habasit Cleanline® TPO conveyor and processing belts?

All Habasit Cleanline® conveyor belts are coated with a special thermoplastic polyolefin. The name is linked with a clean process environment, hygienic conveying, efficiency, and reliability. Now with the new **Habasit Cleanline® Generation II**, it stands also for greatly improved abrasion resistance leading to a longer service life.

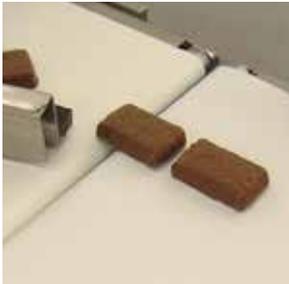
Easy to clean – during a lifetime

Habasit Cleanline® belts have an innovative coating material that provides excellent release. Sticky products come off its surface easily, reducing waste and increasing the throughput of the production line. Improved cleanability provides environmental benefits as well, since less water and detergent means less environmental pollution. Invulnerable against attack from many types of chemicals, all Habasit Cleanline® belts offer a long service life that makes replacement less frequent.

In conclusion, choosing Habasit Cleanline® belts optimizes the efficiency and profitability of users' production processes.



Habasit Cleanline® belts can be used in many different applications and industries. Due to their smooth and homogeneous surfaces, Habasit Cleanline® belts are perfect for sensitive processes, where a clean belt environment, hygienic conveying, efficiency, and reliability are essential.



Food industry

- Bakery
- Biscuits
- Dairy
- Chocolate
- Confectionery
- Meat and poultry
- Seafood
- Miscellaneous (rice processing, ready meals, frozen food, snacks, fruits and vegetables)

Applications

- Transfer of sticky, fragile goods
- Proofer lines
- General conveying and processing
- Inspection and control
- Metal detection
- Cooling, freezing, cold discharge
- Incline, decline
- Powerturn, curve
- Infeed, depositor, outfeed, take-off
- Packaging

Non-food industry

- Wood processing
- Tissue processing
- Lacquering
- High-frequency dryer applications
- Live roller conveyors

TPO-coated conveyor belts offer excellent release properties, and Habasit Cleanline® belts have become well-known for this since their introduction in the early 2000s. However, the belt surface quality suffered from abrasion caused by mechanical influences. With Habasit Cleanline® Generation II belts even scrapers can be considered now – if they are ever needed.



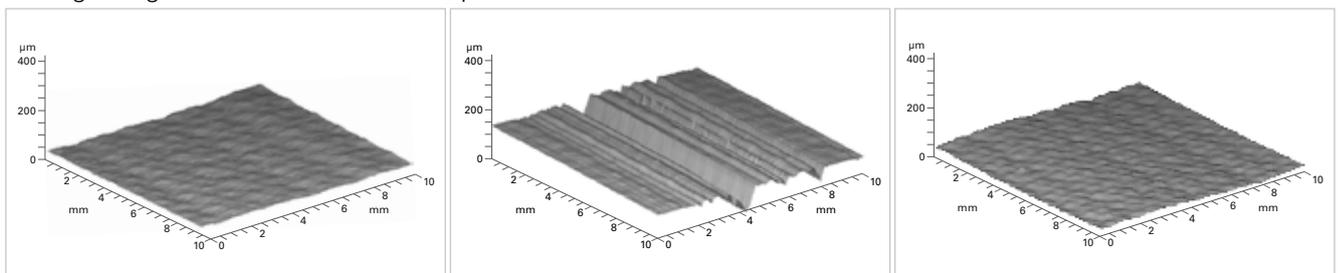
Proven abrasion resistance of Habasit Cleanline® Generation II

In the food industry, several conveyed goods can be particularly aggressive to the surface of conveyor belts. In order to observe the improvement of Habasit Cleanline® Generation II belts, the original coating formulation and the new generation were tested for over 500 hours in continuous lab simulations using TPU scrapers and side guards that permanently scratched the surface of belts covered with oily and abrasive food mocks.

After 100 hours, significant damage was visible on the CNB-6EB first generation Habasit Cleanline® belt, whereas no damage was observed to the Habasit Cleanline® Generation II belt after the same period. After continuing the test on the Habasit Cleanline® Generation II for a further 500 hours, no evidence of damage by the scraper or rock salt on the belt was observed.

Belt samples after abrasion test with rock salt and a TPU scraper

Magnified 3D images of Habasit Cleanline® belts first generation and Generation II after abrasion testing using rock salt and a TPU scraper for 100 hours:



Surface prior to use

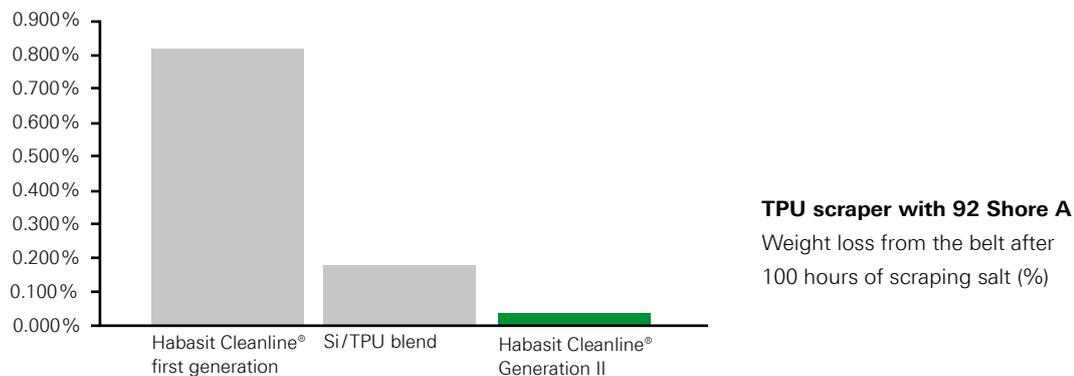
CNB-6EB – first generation material

CNB-6EB-A1 – Generation II material

The surface impact on the Generation II product using this harsh test method is substantially lower: the depth of erosion is reduced to a minimum and features less sharp angles. Thus, the surface integrity remains in good shape, which ensures excellent release of goods and easy cleanability, leading to an extended belt lifetime.

Following Habasit's tests, we can recommend considering a TPU scraper if application of a scraper is desired. The use of steel scrapers with any Habasit Cleanline® belt is not recommended, as steel causes too much wear to the belt surface.

Diagram of surface material weight loss in the scraper test



Habasit Cleanline® TPO in comparison with common coatings for food conveyor belts

Coating material	Habasit Cleanline® first generation	Habasit Cleanline® Generation II	PVC	TPU	Silicone
Release properties	●	●	○	⊙	●
Nosebar suitability	⊙	⊙	—	●	●
Abrasion resistance	○	⊙	○	●	—
Chemical resistance	●	●	⊙	⊙	⊙
Hydrolysis resistance	●	●	⊙	○	○
Cleanability	●	●	⊙	⊙	—
Low operating temperature suitability	●	●	—	⊙	⊙

● = Excellent ⊙ = Good ○ = Fair — = Poor

Key features	Your benefits
Improved wear resistance of the belt coating material	<ul style="list-style-type: none"> • Longer belt service life • Use of TPU scrapers possible
Outstanding release properties	<ul style="list-style-type: none"> • Ideal for sticky goods • Reduces waste • Less soiling of food contact surfaces • Efficient and reliable processes • Increases product quality • Supports HACCP concept
Suitable for frequent cleaning	<ul style="list-style-type: none"> • Supports easy and efficient cleaning • Reduces downtime
Excellent chemical resistance	<ul style="list-style-type: none"> • Flexible use • No damage to belt surface • No layer delamination • Long service life
Wide temperature range (from -40 °C to +80 °C / -40 °F to +176 °F)	<ul style="list-style-type: none"> • Allows for a broad range of applications • Resistant to 90 °C hot water
Longitudinally flexible	<ul style="list-style-type: none"> • Nosebar suitable • Easy transfer from one conveyor to the next • Gentle handling of small and fragile goods
Hydrolysis resistance	<ul style="list-style-type: none"> • No degradation of belt coating • Suitable for warm and humid environments
Tight-knitted bottom fabric	<ul style="list-style-type: none"> • Reduces risk of particle ingress and mechanical shrinkage of belt, leading to longer belt life

The Habasit Cleanline® product range comprises a multitude of belt surfaces providing any feature required by sensitive applications. The conveying sides vary from blank and smooth over an impregnated fabric to waffle structure embossing. The running side mainly features a surface of impregnated fabric that is partly also anti-static, as well as a waffle or Q-embossed TPO cover.



CNB-5E-A1



CNW-5E-A1



CNB-5EVWW-A1



CNB-6EB-A1
Also adhesive as CAB-6EB



CNW-6EB-A1



CNB-6EVWQ-A1



CNB-6EBC-A1



CNW-6EBC-A1



CNI-6EB

Habasit Cleanline® Generation II products featuring the new TPO compound have the addition “-A1” in their product code to indicate their improved abrasion resistance.

Comprehensive services are central to Habasit's belting solution approach

As committed partners to our customers, we are dedicated to sharing our knowledge and to providing full support.



Comprehensive consulting and technical support

Habasit offers the best consulting and technical support on the belting market. Everything revolves around our customers and each affiliate has its own belting experts. The Habasit team is proud to provide the highest levels of support, together with top-quality products that have been leaders on the global market for decades.



Assistance with belt selection and calculation

We will select and calculate the most suitable belt for your specific application. You can also do this yourself with our state-of-the-art Habasit selection and calculation program "SeleCalc". To order this program free of charge, simply call your nearest Habasit partner or contact: info@habasit.com.



Fabrication, assembly and local installation services for quick reaction times

We make belts endless or assemble modular belts or chains, either at our own locations or on-site directly on your machine or system. Habasit operates over 30 affiliated companies worldwide, each with its own inventory, fabrication, assembly and service facilities. Together with our representative offices and numerous qualified distributors, we can react quickly, competently and reliably to satisfy all your demands.



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 emergency our tools will help to minimize breakdown time and support the joining process.



Habasit offers skivers to prepare the belt ends of polyamide power transmission belts and spindle tapes prior to joining. Finger cutting devices to prepare aramide and polyester power transmission belts and TPU spindle tapes are also available. A selection of hot pressing devices to fit your applications and guarantee optimum quality of joining complement the range.

Customer training programs

Habasit offers training programs and provides support tools to ensure optimal use of our products and to prolong their lifetimes. 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, for example, to achieve added value from your 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.



Customers 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.

Learn more on www.habasit.com

Committed to innovation

Because our customers' belting challenges and needs never cease, we consistently dedicate a substantial percentage of our employees and resources to 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 9001:2008.



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
HabaFLOW®



Plastic modular belts
HabasitLINK®



Monolithic reinforced conveyor belts
Habasit Cleandrive™

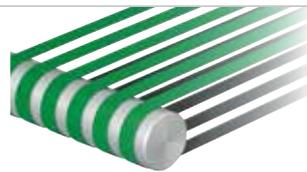
Power transmission belts
HabaDRIVE®



Timing belts
HabaSYNC®



Chains (slat and conveyor chains)
HabaCHAIN®



Machine tapes



Round belts



Seamless belts



Profiles, Guides, Wear strips
HabiPLAST®



Fabrication tools (joining tools)



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Electric motors
Motion control

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