Habasit Cleanline®
Conveyor and Processing Belts

Habasit – Solutions in motion
Introduction

What’s behind Cleanline® TPO conveyor and processing belts?
Cleanline® conveyor belts are coated with a high-tech thermoplastic polyolefine specially modified by Habasit.

Cleanline®
A name linked with a clean belt environment, hygienic conveying, efficiency and reliability.

Habilene®
A name linked with a sophisticated belt coating for easy release of sticky goods and excellent chemical resistance. Habilene® for reliable, constant and precise product flow.

Cleanline® products coated with Habilene® were specifically developed for food processing and represent the latest state-of-the-art design.

Cleanline® conveyor belts offer excellent release properties for all kinds of sticky stuffs.

Cleanline® products offer outstanding chemical properties and withstand harsh cleaning agents.

Innovation is a key word at Habasit
The extensive variety of belting solutions enables our customers to choose the best product for their application.

Competence and experience
Habasit application engineers, technicians and joining specialists are at your disposal to provide professional consulting, superb customer service and excellent support. Since its foundation in 1946, Habasit has proven this understanding of customer needs for more than 50 years. With a comprehensive global network, Habasit is able to respond to any request that you may have with nothing less than an outstanding belting solution of highest quality, tailored to your specific needs.

Cleanline® at a glance

Contents

Surface characteristics / properties
Cleanline® belts feature an absolutely closed, non-porous, homogeneous surface due to the latest state-of-the-art calender technology.

More details → page 7

Surface coating material
Habilene®, a high-tech food thermoplastic polyolefine specially modified by Habasit. See description of polyolefine’s polymer structure, mechanical and chemical properties.

More details → page 7–9

Features and benefits
Material inherent properties, construction and manufacturing technology are complementing one another, resulting in outstanding features such as:
• Absolutely smooth, closed, non-porous belt surface
• Excellent release properties
• Easy to clean
• Excellent chemical resistance
• Suitable for low temperature operations
• Resistant against hydrolysis degradation
• Environment-friendly components (good ecological profile)

Read more about the benefits for your application.

More details → page 12–13
Variety of surfaces / properties / functions / color
- Non-adhesive
- Adhesive
- White or blue
- Waffle structure or fish/herringbone structure
- Fabric surface

More details → page 6

Application or process suitability
To suit a specific application, a process requirement or a defined function, the belt surface and the material inherent properties play a key role.

More details → page 9, 12, 13

Habilene® in comparison with other coating materials
Comparison with other common belt surface coatings like TPU, PVC and Silicone

More details → page 9

Cleanline® conveys success
Read more about added value or about Cleanline® belting solutions.

See → page 14

Conformity
Fully approved for food contact / conformance to:
- FDA
- USDA
- EU Directive 2002/72/EC

More details → page 12

Specialty
- Belt type CNB-5EVWW with Habilene® coating on both sides meets USDA Dairy Equipment Guidelines (3-A)

More details → page 13

Product range offer
10 Cleanline® belt types
- CAB-5E
- CAB-8E
- CAB-6EB
- CNB-5E
- CNB-5EQ
- CNB-5EVWW
- CNB-6EB
- CNB-6EBC
- CNI-6EB
- CNB-8E
- CNW-5E
- CNF-8E

Detailed overview → page 10–11

Product construction / design
Habilene® surface coating on well established and proven polyester (PET) traction layers with conductive threads.
The running side is coated with TPU impregnation or with Habilene®, depending on belt type.
Thickness ranges from:
1.4 mm … 4.4 mm
0.06 in. … 0.17 in.

More details → page 10–11

Delivery
Habasit offers standard joining, on-site joining and installation as well as special fabrication services, such as:
- Edge sealing
- Profile or guide profile welding
- Hole punching
- Curve conveyor layout / cutting preparation

Please contact your local Habasit partner.

General / customized services
- Testing at customer’s site
- Legal and conformity check
- Belt inspection and analysis
- Belt maintenance / repair
- Training

Please contact your local Habasit partner.
Cleanline® applications

[Images of various food processing equipment and products, including pretzels, chocolates, and meat slices on conveyors.]

[Image of a blue machine labeled "OXE" on a conveyor belt, with a box of the same label nearby.]
Food industry

**Bakery / Biscuit**
*Product examples:* Biscuits, cookies, pastry, croissants, bread
*Main belt requirements:* Good release properties, reliable dough transport, no waste, reduced flour consumption

**Dairy**
*Process examples:* Dairy goods such as milk products, yogurt, butter, cheese
*Main belt requirements:* Release properties, avoidance of food residues, easy cleaning, chemical – hydrolysis resistance

**Chocolate / Confectionery**
*Product examples:* Breakfast bars, candy, sweets (honey, caramel, licorice extrusion etc.)
*Main belt requirements:* Good release properties for sticky goods

**Miscellaneous**
*Products and processes:* Rice processing, Ready meals, Pizza processing, Frozen food, Snack foods, Vegetables, fruits
*Main belt requirements:* Release properties, easy cleaning, chemical – hydrolysis – resistance, low temperature resistance, metal detection suitability

**Meat / Poultry / Fish**
*Process examples:* Dressing, trimming, slicing, grading, packaging, metal detection, cold discharging etc.
*Main belt requirements:* Chemical – hydrolysis – resistance, easy cleaning, avoidance of bio-film formation, hygiene supporting, low temperature suitability, metal detection suitability

**Non-food industry**

**Wood processing**

**Tissue processing**

**Lacquering**

**High-frequency dryer application**

**Live roller conveyor** (CAB-5E, CAB-8E)
Cleanline® belts are used in countless manufacturing processes, following are some typical applications.

General conveying and processing (moulding, dough handling, folding, dressing, trimming, slicing, grading, portioning, reworking, positioning etc.)

Inspection / control

Accumulation / metering / singulation

Metal detection

Check-Weighing

Cooling, freezing, cold discharge

Incline / decline

Powerturn / curve

Transfer

Infeed / depositor / outfeed / take-off

Packaging
Belt surface and function
To fulfill the requirements for a specific application process or a defined function the belt surface or the material inherent properties play a key role. See following overview of various surfaces, styles and properties.

Illustrations: Product view from top and bird’s view (running direction from left to right).

**Blank, smooth surface**
Available properties: Adhesive or non-adhesive
Belt types: CAB-5E, CAB-8E, CAB-6EB, CNB-5E, CNB-6EQ, CNB-6EB (also available with blue coating), CNB-8E
Reverse side (running/pulley side) depending on belt type: Impregnated fabric, most types with conductive threads.

**Blank, smooth surface and structured reverse side**
Conveying side: Blank, smooth, non-adhesive
Belt type: CNB-5EVWW
Reverse side (running side/pulley side) with waffle structure, non-adhesive.

**Waffle structure surface**
Conveying side: Waffle structure, non-adhesive
Belt type: CNW-5E
Reverse side (running side/pulley side) impregnated fabric with conductive threads.

**Fish/herringbone structure surface**
Conveying side: Fish/herringbone structure, non-adhesive
Belt type: CNF-8E
Reverse side (running side/pulley side) impregnated fabric with conductive threads.

**Fabric, textile surface**
Conveying side: fabric, non-adhesive
Belt types: CNI-6EB

**Quadrillé (quadrangular) structure surface**
Conveying side: quadrangular structure non-adhesive
Belt type: XVT-2314

**Blue coating**
Conveying side: blue, blank, smooth, non-adhesive
Belt type: CNB-6EBC
Modified polyolefine and high-tech coating technology

Habilene® is a polyolefine specifically modified by Habasit. It is produced in a sophisticated synthesis process and features highest quality coating properties.

Illustration (left): Habilene® coating provides an absolutely smooth, closed and non-porous belt surface.

Illustration (right): Habasit’s high-tech calendering unit.

Polyolefine characteristics

Polyolefine is the generic term for a family of polymers derived from a particular group of base chemicals known as olefins. The polyolefine family includes e.g. polypropylene and polyethylene. Polyolefines are made by joining small molecules (monomers) to form long chains (polymers) with thousands of individual links. The base monomers propylene and ethylene are gases at room temperature, but when they are linked they become long chains of molecules called polymers. As polymers, they form a tough, flexible plastic material with a large variety of uses. Polyolefines belong to the family of plastics with the biggest consumption (53% of all plastics). The backbone of polymers, of which there are more than 30 variations, is always the same.

Key characteristics:
• Made only of Carbon (C), Hydrogen (H)
• Good ecological profile: When burnt in a regular combustion system only Carbon dioxide (CO₂) and Water (H₂O) are set free.
• No release of critical substances like Chlorine (Cl), Fluorine (F) or Nitrogen (N) compounds.

Polymer structure

The Habilene® polymer is characterized by its specific individual structure which makes it different to other TPO materials.

Habilene®
• Specific structure

Other thermoplastic polyolefines as well as thermoplastics such as TPU, PVC
• Inhomogeneous structure
Food suitability and chemical properties
Due to a polymer structure with very little extractables, the material Habilene® is suitable for conveying and processing all kinds of foodstuff and is highly chemical resistant. Habilene® is fully approved for food contact respectively conformable to: FDA, USDA and EU regulations.

Habilene®
- consists of a homogeneous molecule structure which prevents extraction by chemicals.
- The Habilene® material stands for purity. No softener/plasticizer, no additives, no monomers/low-molecular parts.

Other thermoplastic polyolefines
- Short molecules can be easily extracted.
- ♻ = easily extractable

Thermal properties
Habilene® has a narrow melting range which allows joining at low temperature and features good operating temperature range.

Habilene®
- Narrow melting range:
  - Joining at low temperature
  - Good temperature resistance
  - $T_m = 100^\circ C$
  ($T_m = \text{melting temperature}$)

Other thermoplastic polyolefines
- as well as thermoplastics like TPU, PVC
- Wide melting range:
  - High joining temperature
  - Melting temperature variations:
    - $T_m = 120^\circ C$
    - $T_m = 105^\circ C$
    - $T_m = 90^\circ C$
    - $T_m = 80^\circ C$

Mechanical properties
Habilene® material provides good mechanical properties and improved cracking resistance thanks to its specific polymer structure.

Habilene®
- High mechanical strength
- Very good flex bending properties

Other thermoplastic polyolefines
- Limited mechanical strength
- Limited crack resistance
Comparison with other polyolefine compounds
The specific homogeneous structure of Habilene® offers improved properties as compared to other polyolefines.

Habilene®
- No additives that can be extracted
- Homogeneous molecular structure

Other thermoplastic polyolefins
- Additives can be extracted
- Poor chemical resistance of soft parts
- Difficult to process and join
- Poor mechanical properties
Legend: 1 additives, 2 hard, 3 soft

Habilene® in comparison with common coatings (coatings for light conveyor belts)

<table>
<thead>
<tr>
<th>Coating material</th>
<th>Habilene®</th>
<th>PVC</th>
<th>TPU*</th>
<th>Silicone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release properties</td>
<td>🤖</td>
<td>🙀</td>
<td>😊</td>
<td>😊</td>
</tr>
<tr>
<td>Nosebar suitability</td>
<td>🤖</td>
<td>🙀</td>
<td>😊</td>
<td>😊</td>
</tr>
<tr>
<td>Abrasion resistance</td>
<td>🙀</td>
<td>😋</td>
<td>😋</td>
<td>😋</td>
</tr>
<tr>
<td>Chemical resistance</td>
<td>😋</td>
<td>😋</td>
<td>😋</td>
<td>😋</td>
</tr>
<tr>
<td>Hydrolysis resistance (Habilene® is resistant against hydrolysis processes / deformation)</td>
<td>😋</td>
<td>😋</td>
<td>😂</td>
<td>😂</td>
</tr>
<tr>
<td>Cleanability (easy to clean)</td>
<td>😋</td>
<td>😋</td>
<td>😋</td>
<td>😋</td>
</tr>
<tr>
<td>Low operating temperature suitability</td>
<td>😋</td>
<td>😋</td>
<td>😋</td>
<td>😋</td>
</tr>
<tr>
<td>UV-radiation resistance</td>
<td>😋</td>
<td>😋</td>
<td>😂</td>
<td>😂</td>
</tr>
</tbody>
</table>

Legend:
- 🌟 excellent
- 😊 good
- 😋 fair
- 😂 poor

*(Polyester-Polyurethane)*
| Industries                      | Sub industries                  | Belt application                                      | Cleanline® c |  |
|--------------------------------|---------------------------------|-------------------------------------------------------|--------------|
| **Food industry**              | **Bakery – Biscuit**            | Dough divider / feeder belt                           | •            | • |
|                                |                                 | Moulder / rounder                                      | •            |   |
|                                |                                 | Dough conveyor (sheeter / extruder / curling)          | •            |   |
|                                |                                 | Gauge roll / calibration                               | •            |   |
|                                |                                 | Cross roller line                                      | •            |   |
|                                |                                 | Sprinkler / depositor                                   | •            |   |
|                                |                                 | Transfer conveyor                                      | •            |   |
|                                |                                 | Folding station                                        | •            |   |
|                                |                                 | Cooling line                                            | •            |   |
|                                |                                 | Check weighing                                          | •            |   |
|                                |                                 | Packaging line                                          | •            |   |
|                                | **Chocolate – Confectionery**   | Cooling belt                                           | •            |   |
|                                |                                 | Powderturn / curve conveyor                             | •            |   |
|                                |                                 | Transfer conveyor                                      | •            |   |
|                                |                                 | Metal detector                                          | •            |   |
|                                |                                 | Inspection line                                        | •            |   |
|                                |                                 | Packaging line                                          | •            |   |
|                                |                                 | Check weighing                                          | •            |   |
|                                | **Meat – Poultry – Fish**        | Trim line                                              | •            |   |
|                                |                                 | Dressing line                                           | •            |   |
|                                |                                 | Portioning                                             | •            |   |
|                                |                                 | Grading                                                | •            |   |
|                                |                                 | Slicing                                                | •            |   |
|                                |                                 | Metal detector                                          | •            |   |
|                                |                                 | Packaging line                                          | •            |   |
|                                |                                 | Check weighing                                          | •            |   |
|                                |                                 | Cold discharge                                          | •            |   |
|                                | **Dairy**                       | Transfer conveyor                                      | •            |   |
|                                |                                 | Slicing                                                | •            |   |
|                                |                                 | Metal detector                                          | •            |   |
|                                |                                 | Packaging line                                          | •            |   |
|                                |                                 | Check weighing                                          | •            |   |
|                                | **Miscellaneous applications / processes** | Rice processing                                   | •            |   |
|                                |                                 | Pizza processing                                       | •            |   |
|                                |                                 | Ready meal (convenience food) processing               | •            |   |
|                                |                                 | Frozen food processing                                  | •            |   |
|                                |                                 | Licorice extrusion                                      | •            |   |
|                                |                                 | Snack food processing                                   | •            |   |
|                                |                                 | Vegetables, fruits handling                            | •            |   |
|                                | **Non-Food industry**            | Wood processing                                        | •            |   |
|                                |                                 | Lacquering                                             | •            |   |
|                                |                                 | High frequency dryer                                   | •            |   |
|                                |                                 | Live roller conveyor                                   | •            |   |
|                                | **Product data**                | Conveying side (Material)                              | Habilene     | Habilene |
|                                |                                 | Conveying side (Surface)                               | Blank/smooth | Blank/smooth |
|                                |                                 | Conveying side (Property)                              | Adhesive     | Adhesive |
|                                |                                 | Conveying side (Color)                                 | White        | White    |
|                                |                                 | Number of fabrics (plies)                              | 2            | 2        |
|                                | **Product characteristics**     | Permanently antistatic                                  | Yes          | Yes      |
|                                | **Technical key data**          | Thickness [mm]                                         | 1.4          | 2.0      |
|                                |                                 | [in]                                                  | 0.06         | 0.08     |
|                                |                                 | Nosebar radius (minimum) [mm]                          | –            | –        |
|                                |                                 | [in]                                                  | –            | –        |
|                                |                                 | Pulley diameter minimum with counter flexion [mm]      | 30           | 70       |
|                                |                                 | [in]                                                  | 1.2          | 2.8      |
|                                |                                 | Tensile force for 1% elongation (k1% static) per unit of width (Habasit standard 320.064) [N/mm] [lbs/in] | 6.0          | 8.0      |
|                                | **Joining system**              | Flexproof                                              | •            |   |
|                                |                                 | Mechanical fastener                                    | •            |   |

**CAB-5E**  **CAB-8E**
### Technical Key Data

**conveyor and processing belts with Habilene® coating (Habilene = Habasit modified TPO), Belt types (belt code)**

<table>
<thead>
<tr>
<th>CAB-6EB</th>
<th>CNI-6EB</th>
<th>CNB-5E</th>
<th>CNB-5EQ</th>
<th>CNB-5EVWW</th>
<th>CNB-6EB</th>
<th>CNB-6EBC</th>
<th>CNB-8E</th>
<th>CNW-5E</th>
<th>CNF-8E</th>
<th>XVT-2314</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>1.05</td>
<td>0.9</td>
<td>1.4</td>
<td>1.4</td>
<td>2.3</td>
<td>1.05</td>
<td>1.05</td>
<td>2.0</td>
<td>1.9</td>
<td>4.4</td>
<td>1.4</td>
</tr>
<tr>
<td>0.04</td>
<td>0.04</td>
<td>0.08</td>
<td>0.06</td>
<td>0.09</td>
<td>0.04</td>
<td>0.04</td>
<td>0.08</td>
<td>0.07</td>
<td>0.17</td>
<td>0.06</td>
</tr>
<tr>
<td>0.08</td>
<td>0.08</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>0.08</td>
<td>0.08</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>0.16</td>
</tr>
<tr>
<td>0.8</td>
<td>0.8</td>
<td>1.6</td>
<td>1.6</td>
<td>2.0</td>
<td>0.8</td>
<td>0.8</td>
<td>2.8</td>
<td>2.0</td>
<td>3.1</td>
<td>0.9</td>
</tr>
<tr>
<td>4.5</td>
<td>4.5</td>
<td>6.0</td>
<td>6.0</td>
<td>7.0</td>
<td>4.5</td>
<td>4.5</td>
<td>8.0</td>
<td>6.0</td>
<td>8.0</td>
<td>4.5</td>
</tr>
<tr>
<td>26</td>
<td>26</td>
<td>34</td>
<td>34</td>
<td>40</td>
<td>26</td>
<td>26</td>
<td>46</td>
<td>34</td>
<td>46</td>
<td>26</td>
</tr>
</tbody>
</table>

### Materials

- **Habilene Blank/smooth Impregnated fabric**
- **Polyester (PET) Impregnated fabric**
- **Adhesive**: Non-adhesive
- **Bone structure**: Fish/herring-Quadrille

### Properties

<table>
<thead>
<tr>
<th>Habilene</th>
<th>Polyester (PET)</th>
<th>Habilene</th>
<th>Habilene</th>
<th>Habilene</th>
<th>Habilene</th>
<th>Habilene</th>
<th>Habilene</th>
<th>Habilene</th>
<th>Habilene</th>
<th>Habilene</th>
<th>Habilene</th>
<th>Habilene</th>
<th>Habilene</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>White</td>
<td>White</td>
<td>White</td>
<td>White</td>
<td>White</td>
<td>White</td>
<td>White</td>
<td>Blue</td>
<td>White</td>
<td>White</td>
<td>White</td>
<td>White</td>
<td>White</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>1.05</td>
<td>0.9</td>
<td>1.4</td>
<td>1.4</td>
<td>2.3</td>
<td>1.05</td>
<td>1.05</td>
<td>2.0</td>
<td>1.9</td>
<td>4.4</td>
<td>1.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.04</td>
<td>0.04</td>
<td>0.08</td>
<td>0.06</td>
<td>0.09</td>
<td>0.04</td>
<td>0.04</td>
<td>0.08</td>
<td>0.07</td>
<td>0.17</td>
<td>0.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.08</td>
<td>0.08</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>0.08</td>
<td>0.08</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>0.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.8</td>
<td>0.8</td>
<td>1.6</td>
<td>1.6</td>
<td>2.0</td>
<td>0.8</td>
<td>0.8</td>
<td>2.8</td>
<td>2.0</td>
<td>3.1</td>
<td>0.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5</td>
<td>4.5</td>
<td>6.0</td>
<td>6.0</td>
<td>7.0</td>
<td>4.5</td>
<td>4.5</td>
<td>8.0</td>
<td>6.0</td>
<td>8.0</td>
<td>4.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>26</td>
<td>34</td>
<td>34</td>
<td>40</td>
<td>26</td>
<td>26</td>
<td>46</td>
<td>34</td>
<td>46</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Remarks
This application/belt matrix does not apply to be complete and shall serve only as indication of potential solutions. For detailed material and belt selections 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.

Legend
● = applicable
● = conditionally applicable
– = not applicable

Product key data overview
You will find the key data for most Habasit products on the Habasit Website:
www.habasit.com

Select an affiliated company
• e.g. United Kingdom

Products
• e.g. Conveyor belts

Product data
• Overview

Detailed technical data for each product/belt type
With one more click on the respective belt type, you will obtain a technical data overview, showing details such as:
• Product designation/features
• Product design/built-up
• Product characteristics
• Technical data etc.
Legend / remarks
See folding page (flap)
### Features

- Absolutely blank, smooth, closed and non-porous belt surface
- Calendered surface coating

### Benefits

- Reduced soiling of belt surface
- Very good release properties
- Full support of easy and efficient cleaning
- HACCP support
  (HACCP = Hazard Analysis and Critical Control Points)
- Blue coating available (CNB-6EBC)

### Features

- Excellent release properties
- Low surface energy
- Non-polar material

### Benefits

- Excellent release of sticky products
- Less soiling
- Minimum affinity of surface with food, food-residues and bacteria
- Efficient and reliable processing
- Reduced waste
- Reduced downtime
- Increased product quality
- Easy to clean
- Less biofilm formation
- Supporting hygiene measures – food safety

### FDA

- Absolutely blank,
- Calendered surface coating
- Excellent release properties
- Low surface energy
- Non-polar material

### Benefits

- Conformance to:
  - FDA (Food and Drug Administration)
  - USDA (United States Department of Agriculture)
  - EU Directive 2002/72/EC
    (replaces EU 90/128/EEC)
- Meeting food safety and sanitary requirements
- No odor absorption
- No plasticizer migration

### Excellent chemical resistance

- Applicable for High-Frequency applications
- Microwave suitable

### Benefits

- Resistant to: Acids, alkaline, acetone, alcohol, oil, fat, chlorine, detergents, hot water, salt, UV-radiation
- Resistant to aggressive cleaning agents even in case of frequent cleaning cycles
- No damage of belt surface
- No layer delamination
- Save and reliable processing
- Supporting hygiene measures – food safety

### Unique fabric design

- Spun fabrics allow coating without bonding agents
- Reduced risk of contamination
- Knitted fibre to avoid mechanical shrinkage (CNB-6EB, CNB-6EBC, CNI-6EB, CAB-6EB and XVT-2314)
### Cleanline® features and benefits (contd.)

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
</table>
| • Excellent low temperature resistance down to -40°C / -40°F | → Suitable for cold store application  
→ No loss of bending properties in low temperature environment  
→ No cracking of belt surface  
→ Habilene® withstands lower temperature conditions than any other coating materials such as TPU or PVC |
| • Longitude flexibility  
• Nosebar suitability for CNB-6EB and CAB-6EB | → Belt can cope with small pulley diameters, compact design  
→ Smooth and trouble free product transfer  
→ Low energy consumption |
| • Habilene® is resistant against hydrolysis processes/degradation  
• Insensitive to humidity and temperature fluctuations | → Suitable for wet and humid operating conditions up to 80°C / 176°F  
→ No change of belt surface and conveying behavior due to humidity  
→ No surface degradation  
→ Safe and reliable processing  
→ One belt for different operating conditions regardless of process environment  
→ Dimensionally stable belt  
→ No re-tensioning  
→ No downtimes |
| • Constant coefficient of friction  
• Fair abrasion resistance | → Reliable conveying properties  
→ No marking of goods  
→ Long belt life |
| • Permanently antistatic belts available  
• Integrated conductive threads | → No interference with electronic devices  
→ Less dust and dirt attraction  
→ Process reliability  
→ Low maintenance cost |
| • Edge sealable  
• Reverse side coated belts with edge sealing (CNB-5EVWW) meets USDA Dairy Equipment Guidelines (3-A) | → Edge protection prevents the penetration of impurities into the traction layer fabric via belt edge/border  
→ Increase of mechanical strength of belt edges  
→ HACCP support  
(HACCP = Hazard Analysis and Critical Control Points) |
| • Environment-friendly product  
• Improved ecological profile | → Cleanline® belts are easily disposable  
→ Nearly no other residues than water H₂O and carbon dioxide CO₂ are set free when burnt  
→ Lower belt disposal costs |
Customer value
Each of our employees is a specialist who is at your service to provide you with belting solutions that will best suit your needs. To prove this, examples of currently successful applications which are giving added value to the customer are listed below:

**Confectionery industry – Nougat bars**
Application: Stripes of nougat bars running through cooling tunnel, cutting to final length and transfer of single bars to the next conveyor.
Challenge: Insufficient release, products stuck to TPU belt surface. To increase release properties, the customer sprinkled palm oil on the belt.
Solution: Installation of Cleanline® CAB-8E brought best release results. Furthermore, less palm oil is now needed. Savings of about 25% annually.

**Bakery industry – Bread and buns**
Application: Conveying/handling of dough.
Challenge: Adherence of product residues on fabric belts lead to production loss and hygiene risks over time.
Solution: After the installation of Cleanline® belts product residues did no longer adhere.

**Bakery industry – Puff pastry**
Application: Conveying/handling of puff pastry
Challenge: Product stuck too much to the impregnated fabric belt surface. To improve the release behaviour, a lot of flour was used.
Solution: After installation of Cleanline® CNB-6EB the customer reports excellent release of raw dough, savings of flour of more than 30% and drastically reduced cleaning efforts.

**Candy / sweets industry – Licorice products**
Application: Extruder belt for licorice products.
Challenge: Strong adhesion of product to conveyor belt surface.
Solution: Since customer changed to Cleanline® CNW-5EVWW, the most excellent release characteristics ever achieved are reported.

**Candy / sweets industry – Breakfast bars**
Application: Production of very sticky breakfast bars.
Challenge: Product residues were sticking to belt’s surface. Some conveyors were equipped with metal scrapers and heating device in front of the scraper to remove product residues from the belt. Substantial production losses every day.
Solution: After installation of Cleanline® CNB-5E, the customer was able to remove all scrapers because of the outstanding release properties. Today, the production loss is reduced by 90%. On a declined conveyor, Cleanline® CNB-5E replaced silicon coated belts, resulting in additional cost savings.

**Meat processing industry – Meat slicing**
Application: Meat slicer with nosebar
Challenge: Formerly TPU coated belts lasted for a maximum of two months only due to delamination caused by daily cleaning and chlorine sanitation.
Solution: After installation of the nosebar suitable Cleanline® CNB-6EB the belt’s lifetime was extended by almost one year.
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
Product liability, application considerations

If the proper selection and application of Habasit products are not recommended by an authorized Habasit sales specialist, the selection and application of Habasit products, including the related area of product safety, are the responsibility of the customer. All indications/information are recommendations and believed to be reliable, but no representations, guarantees, or warranties of any kind are made as to their accuracy or suitability for particular applications. The data provided herein are based on laboratory work with small-scale test equipment, running at standard conditions, and do not necessarily match product performance in industrial use. New knowledge and experiences can lead to modifications and changes within a short time without prior notice. BECAUSE CONDITIONS OF USE ARE OUTSIDE OF HABASIT’S AND ITS AFFILIATED COMPANIES CONTROL, WE CANNOT ASSUME ANY LIABILITY CONCERNING THE SUITABILITY AND PROCESS ABILITY OF THE PRODUCTS MENTIONED HEREIN. THIS ALSO APPLIES TO PROCESS RESULTS / OUTPUT / MANUFACTURING GOODS AS WELL AS TO POSSIBLE DEFECTS, DAMAGES, CONSEQUENTIAL DAMAGES, AND FURTHER-REACHING CONSEQUENCES.