

Bio Belt™



The green
innovation

siegling transilon
conveyor and processing belts





Bio Belt™

Green used to mean simply a conveyor belt's colour. In Bio Belt's case the term refers to the belt's composition. Made of renewable materials and bio-degradable, Bio Belt is now the eco-friendly alternative to traditional conveyor belting. Due to special energy-saving treatment, it also verifiably cuts energy costs and can easily replace standard belts in many applications.

Bio Belt is the right choice for any conveyor operators who adopt more than just a sustainability mind-set, but consistently pursue a sustainability concept.

Bio Belt has been developed by a global team of researchers. At Forbo Siegling this team has pulled out all the stops to provide solutions that are geared to real-world conditions, maximise environmental friendliness and at the same time enhance the benefit the product offers.

The green innovation

Renewable, bio-degradable raw materials and less power consumption

In Bio Belt products, petroleum-based feedstock and synthetic materials have been extensively replaced by renewable plant-based materials. Because they are bio-degradable at the end of their product life, these play a major role in complying with the “cradle-to-cradle” principle. With an additional, already patented, special coating on the underside (Amp Miser™) they achieve energy savings of up to 40%.

Quick to exchange

In terms of their physical and dynamic characteristics, Bio Belt products are identical to conveyor belts made of synthetic materials. The same goes for their level of performance and durability. Technical modifications to the conveyors are unnecessary and even the splicing methods are the same.

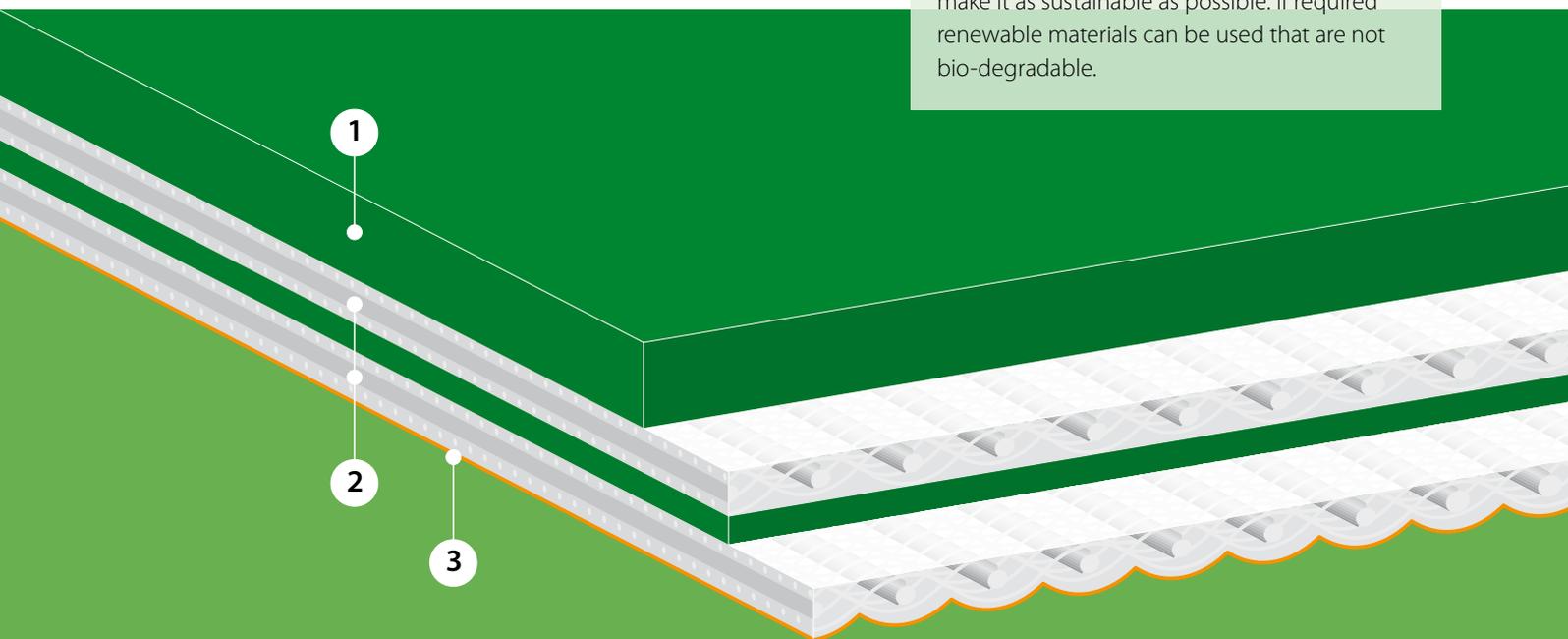
Successful tests in real-world conditions show that Bio Belt products are just as ideal for airports as for parcel sorting, logistics centres and for industrial production. To date Bio Belt is available in two versions and more are in the pipeline.



Modular product structure

- ① Top-face coating based on renewable materials, bio-degradable
- ② Tension member with a special weave made of cellulose fibres, bio-degradable
- ③ Underside coating with particularly low friction coefficient

The Bio Belt concept has a modular structure in order to tap into as wide a range of applications as possible. The belt's component parts can be modified to suit the application to make it as sustainable as possible. If required renewable materials can be used that are not bio-degradable.



BioBelt™ range	Colour	Total thickness approx. [mm]	Weight approx. [kg/m ²]	Pull at 1 % elongation (k ₁ relaxed) approx. [N/mm width]*	d _{min} approx. [mm]**	Airports	Parcel centres
Bio 8/2 TX0/B5H SE-BBD-Amp	green	3.5	3.2	8	60	●	●
Bio 8/2 TX0/B10 LG-SE-BBD-Amp	green	4.0	3.8	8	60	●	●

Key

- AMP** = AmpMiser™
BBD = Bio-based and bio-degradable
B = Special Bio Belt coating
H = Hard
LG = Longitudinal groove
SE = Flame retardant (according to EN 340)
TX = Texslide

* Established in line with ISO 21181:2005

** The smallest permissible drum diameters were established at room temperature and do not apply to conveyor belts with mechanical fasteners. Lower temperatures require bigger drum diameters.

The properties*

made of renewable materials

bio-degradable

patented, low-friction underside coating

helps reduce carbon footprints

physical properties equal conventional belts

The advantages*

resource-efficient production

environmentally friendly disposal

up to 40% energy savings during operation, low noise pollution

supports your sustainability concept

easy to substitute without modifying the conveyor



* Apply to the types listed in the table.

BioBelt FAQs

What does bio mean when referring to conveyor belts?

Bio in conveyor belt terms means using special raw materials to help sustain and protect the environment without sacrificing the conveyor belts' good physical and dynamic characteristics.

What characterises Bio Belt products?

- They are made of renewable materials.
- They are bio-degradable and/or compostable.
- They have coatings on their undersides which save up to 40% in energy (AmpMiser™).

The Bio Belt concept is modular and aimed at market acceptance across the board. The current range includes both bio-based (BB) and bio-based bio-degradable (BBD) types. All types have energy-saving Amp Miser fabric.

What does bio-based mean?

Bio-based means that the belt is based on renewable raw materials. However, it is not an absolute requirement that they all have to be renewable. Forbo uses the highest proportion technically possible.

What does bio-degradable mean?

Bio-degradable means that the belt is decomposed by microorganisms under defined conditions.

What does compostable mean according to EN ISO 14995/13432?

According to EN ISO 14995/13432, compostable means that microorganisms decompose the belt within a certain period, with no negative impact on the quality of the resulting compost.

Do BioBelt products have similar technical characteristics? ($k_{1\%}$, bonding strength, F_w -value, friction coefficient ...)

The physical characteristics are similar to standard belts.

What options exist for customising the belts?

Basically the same as those for standard belts, for example applying profiles, making perforations, sealing belt edges etc.

How are the belts made endless?

In the same way as standard belts. However, there can be types that are made endless like urethane belts or PVC types.

Do problems occur when the belts operate in high levels of humidity?

Not where the bio-degradable Bio Belt products are concerned. Humidity on its own is not a problem for the bio-degradable material either. With regard to decomposition, microorganisms and heat are required.

How long is the belt's service life?

Due to the raw materials used, we can expect the belts to last the same length of time as standard belts.



Siegling – total belting solutions

Committed staff, quality-orientated organisation and production processes ensure the constantly high standards of our products and services. The Forbo Siegling Quality Management System is certified in accordance with ISO 9001.

In addition to product quality, environmental protection is an important corporate goal. Early on we also introduced an environmental management system, certified in accordance with ISO 14001.



Forbo Siegling service – anytime, anywhere

The Forbo Siegling Group employs more than 2,000 people. Our products are manufactured in nine production facilities across the world. You can find companies and agencies with warehouses and workshops in over 80 countries. Forbo Siegling service points are located in more than 300 places worldwide.