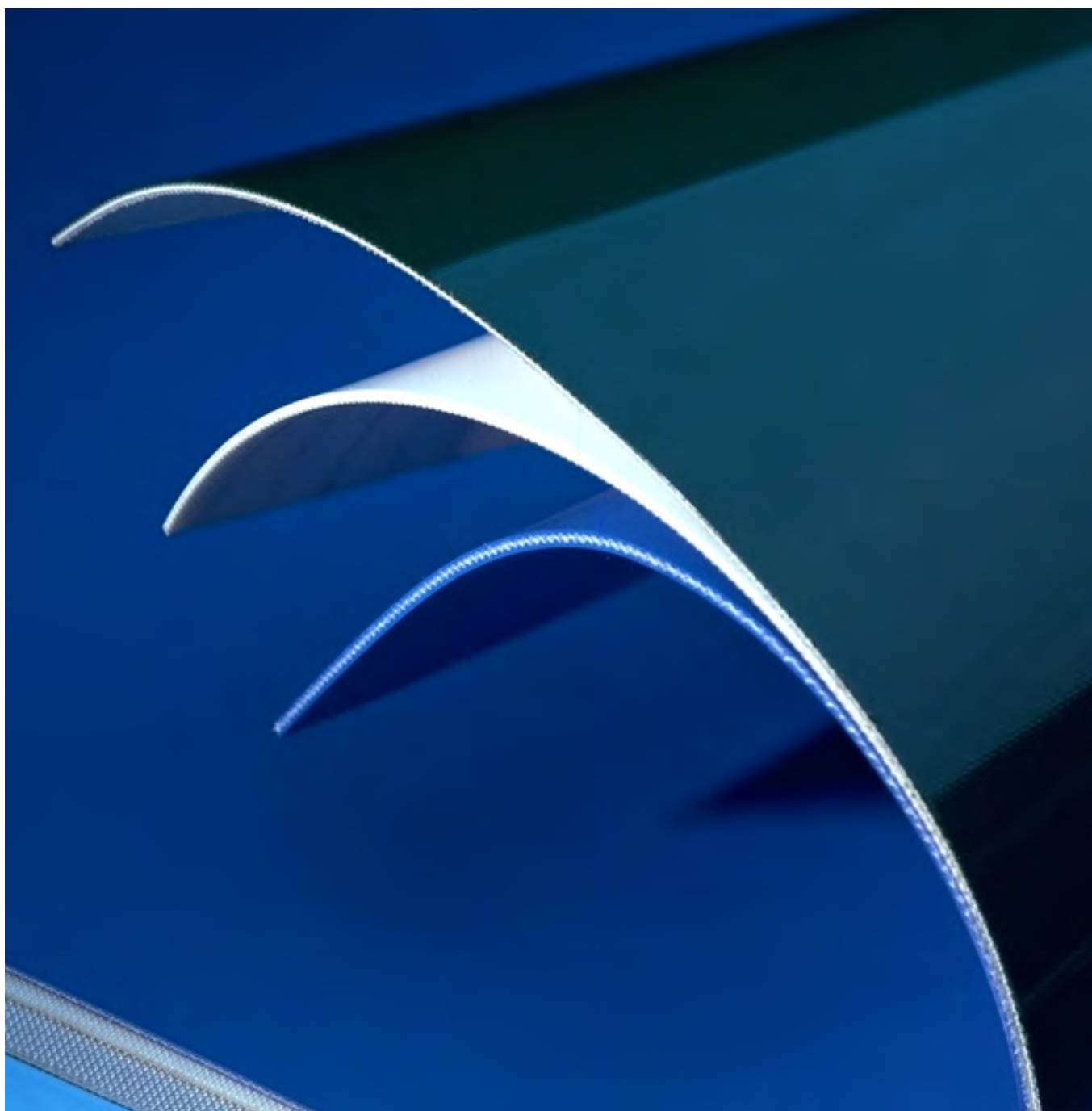


Synthetic Conveyor Belts General Brochure



1. Company profile



Ammeraal Beltech is a global market leader in the design, manufacturing, fabrication and servicing of high-quality, high-performance process and conveyor belts.

We employ over 3,000 of the best people in the business – people who love belting and are passionate about what they do best – helping our customers with their belting challenges, so they can achieve more production up-time, higher product quality and lower total cost of ownership (TCO).

Our products are available in 150 countries around the world; our network is vast, which means it's also local, and on-site service is often 24/7.

In addition to our Synthetic Belt range, we offer:

- Modular Belts
- Homogeneous Belts
- Plastic and Steel Chains
- Engineered Belts
- High Performance Flat Belts
- Endless Woven Belts
- Round & V-belts

Ammeraal Beltech products are at home in nearly every **industry**, often in critical applications:

- Airports
- Automotive
- Carton, Paper, Packaging materials
- Coating & Lamination
- Food
- Logistics
- Marble and Ceramic
- Metal
- Textile
- Tobacco
- Treadmills
- Tyre
- Wood

local stock
quick belt replacement
short delivery time
24/7 service



2. Features & Standards

Ammeraal Beltech Synthetic Belts are designed to meet the specific needs of the industries in which they are used. We offer a broad array of materials, constructions, colours and unique features of design created through collaboration with industry leaders in the segments we service. Some of our features & standards are:

- **Food grade**

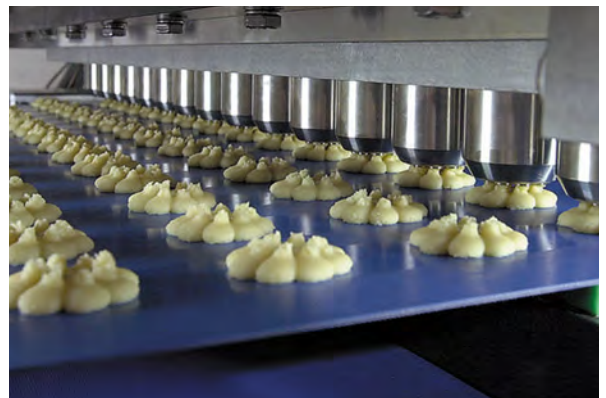
We manufacture belts for use in high or low temperatures, with excellent resistance to oils and fats and superb release characteristics. To ensure food safety and to avoid any food contamination, a complete range of belts is available in compliance with:

- the latest EU regulation EC 1935/2004, EU 10/2011 and amendments
- food contact surface FDA standards



- **AntiMicrobial**

Ammeraal Beltech developed belts with antimicrobial additives to assist in reducing the number of microbes on food contact surfaces. This also reduces the risk of food contamination - insuring optimum adherence to your food safety standards and supports the implementation of your ISO 22000 (ex HACCP) programs.



- **Non-fray**

Our non-fray belts run and remain intact longer and deliver even better food hygiene by reducing fabric fray contamination. Our KleenEdge and AmSeal Belts tackle contamination risks that may occur from belt edge wear. The belt construction is designed in such a way that the high strength reinforcement fabric is held securely together with a tough non-cracking thermoplastic polyurethane seal.



- **Knife-edge transfer**

Particularly when conveying small goods, the transfer between 2 belts must be as short as possible. In this case it is common to use knife-edges. More tension is needed to flex the belt over a knife-edge which causes more wear. This calls for premium quality belts.



- **Low noise, Flame-retardant, Impact Resistant**

We offer low noise belts, flame retardant belts and belts designed to handle impact and abrasion; all of which is required in today's high speed logistics and airport environments.



- **High grip**

Our high grip belts are specifically designed to increase the friction between the belt and the products being carried. This is often needed for inclined transport or in slippery conditions. High grip characteristics can be obtained by using cover surface profiles (embossing).



- **Wear-resistant**

We offer a range of wear-resistant belts that are specifically designed to handle even the toughest conditions you can think of. Wear-resistance is one of the most important properties that determine the life expectancy of a process & conveyor belt.



- **Energy saving**

Belt selection is a very important factor in saving energy, but not the only one. Ammeraal Beltech's 'Energy Saving Concept' is based on 3 pillars that influence the power demands of a conveyor:

- Conveyor design, in order to get the basics right
- Belt selection, a fit for purpose belt
- Drum motor sizing, not too big (waste of energy) and not too small (will be overworked)



3. Indication of use



There are more usages for Synthetic Belts besides the normal A-to-B (horizontal) conveying of goods, where a specific belt is needed to get the job done.

Process- and Conveyor type examples:

- *Troughed conveyors*
- *Curved conveying*
- *Inclined or declined conveying*
- *Accumulation*

- **Troughed (roller support)**

Used to convey bulk materials such as sand, grain, sugar, etc. The belts need to have good lateral flexibility.

- **Curved conveying**

Curved belts are used to change the direction of travel of goods (between 30 and 180 degrees), for sorting purposes or when saving floor space is crucial.

- **Inclined/declined conveying**

For inclined conveying measures must be taken to prevent goods from sliding down or falling: cover profile providing high friction between goods and belts or accessories (like cleats) for larger angles of inclination or for bulk products.

- **Accumulation**

To interrupt the flow of goods temporarily, the simplest solution is to stop the belt, but often this is neither possible nor desirable. In this case, the flow of goods is stopped, while the belt continues to run. This is called accumulation or buffering.

4. Materials

Our comprehensive range of Synthetic Belts is able to fulfil the application needs for light to heavy processing and conveying applications.

Synthetic conveyor belts are made of fabrics with a coating on the top and/or bottom side. A belt consists of one or more fabric plies to give features such as strength, stability and impact resistance. The coatings used on Synthetic Belts are called polymers and can be made of various materials which can be of influence on the suitability of the belt in a certain application.

Main used compounds for coatings are:

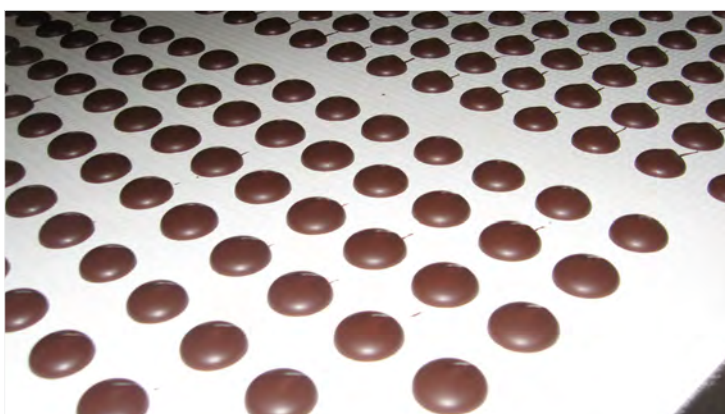
- **PVC:** Flexam, Nonex
- **Polyurethane:** Ropanyl, Ropanol, Ropan, Ultraclean, Ultranyl
- **Polyolefin:** Peflex, Poliflex, Polikleen
- **Polyester:** Amtel
- **Silicone:** Silam
- **Special Blends:** Pletex, Elastoflex, Elastonyl



By mixing polymers together, Ammeraal Beltech produces variations on PVC or PU called **“Special Blends”**.

The Synthetic Belts range also includes Fabric and Felt belts, used in a wide variety of material transport applications such as car manufacturing, food processing and heavy industry.

Felt is a non-woven fabric. The most important raw material for belting fabrics is polyester. Main fabrics used are: Cotton (natural) | Flax (natural) | Polyamide (synthetic) | Polyester (synthetic).



PVC BELTS

Flexam

- Good chemical resistance (including chlorine)
- Hydrolysis resistance (hot water and steam)
- Flame-retardant types available (ISO 340)



Nonex

- Good resistance to oil and fat
- Food compliance for all foodstuff
- Available in white and light blue, and with various profiles



Ropanyl

- Belts with thermoplastic polyurethane coating
- Very flexible even at low temperatures
- Very good resistance to oil and fat



Ropanol

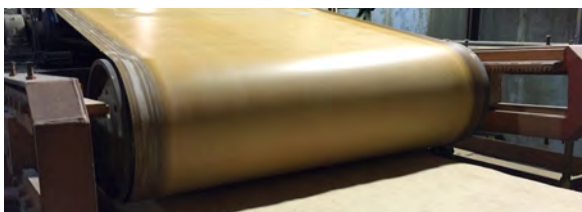
- Belts with polyurethane impregnation (zero thickness)
- Low friction top side for accumulation
- Very flexible even at low temperatures



POLYURETHANE BELTS

Ropan

- Belts with unique heavy duty polyurethane coating
- Extremely good abrasion and cut resistance
- Thermoplastic inner layer, suitable for hot splicing



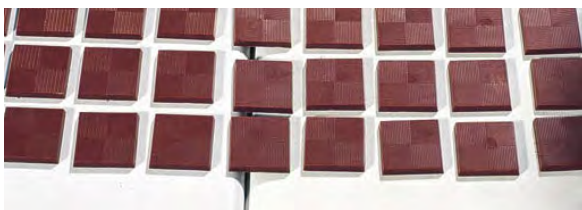
Ultranyl

- Very good hydrolysis resistance
- Belts with thermoplastic polyurethane coating
- Flexible, suitable for high temperature



Ultraclean

- Excellent release properties
- Very good oil and fat resistance
- High chemical resistance



POLYOLEFIN & POLYESTER BELTS

Peflex

- Flexible at low temperatures
- Chemically inert material, good chemical resistance
- Pyrolysis resistance non-toxic when burning (tobacco approved)



Poliflex

- Excellent chemical resistance
- Pyrolysis resistance (non-toxic when burning, tobacco approved)
- Food compliance for all foodstuff



Polikleen

- Excellent chemical resistance
- Pyrolysis resistance (non-toxic when burning, tobacco approved)
- Good wear resistance



Amtel

- Polyester
- Mechanically very strong
- Flexible at low temperatures



Pletex

- High grip
- Good chemical resistance
- Available in red colour



Silam

- Good release of sticky products
- High temperature resistance
- Chemical resistance



SPECIAL BLENDS BELTS

Elastoflex

- Very good wear resistance and good grip
- Good oil resistance
- Available in green and beige colour



Elastonyl

- Excellent wear-resistance and good grip
- Very good oil resistance
- Available in green colour



5. Fabrication & Accessories

Synthetic Belts can also be fitted with accessories such as cleats (also called carriers), ropes and bordoflex. Fitting of accessories is only possible on thermoplastic belts using a material that is similar to the belt cover. Rubber accessories are always glued.

Main STANDARD fabrication and accessories



Cleats

Cleats (also called 'carriers') are used on the topside of the belt for inclined and declined conveying as well as product separation in many industries: food, tobacco, agriculture, chemical, packaging, and automotive.



Bordoflex

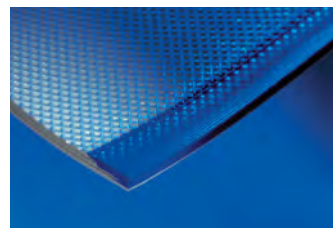
Bordoflex is used to increase conveying capacity when bulk goods are transported. There are two types of Bordoflex: solid and fabric reinforced. The fabric reinforced type is more rigid and tear resistant than the solid one.



Ropes & Strips (V Guide)

Ropes and strips can be used:

- on the topside of the belt as spill edges, in particular where bulk goods are conveyed to maintain or increase capacity and also as cleats to divide the flow of goods.
- on the bottom side of the belt to assist and improve tracking



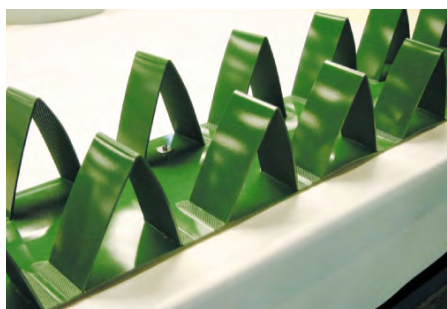
Amseal

Belt with Amseal closed edges are used in various market segments to avoid bacteria growth, fraying edges, fabric particles in the products (usually food) and delaminating.

Other SPECIAL fabrication and accessories



Depanners



Flower cleats



Pillows



Finger cleats



Brush belts

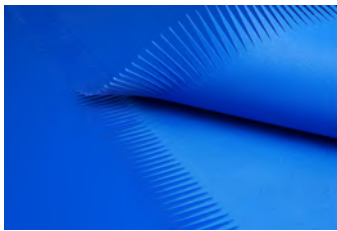


Harvest belts

6. Endlessing methods

To make belts endless, Ammeraal Beltech offers several options with the choice of type dependent on the application itself. Multiple in-house developed splice tools are available.

Standard splicing methods



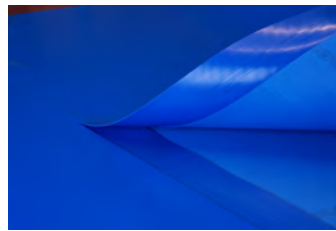
Finger Splice

- 40 - 50% strength of belt breaking strength
- Consistent thickness
- Flexible
- 2 running directions



Finger-overlap-finger Splice

- 70 - 80% strength of belt breaking strength
- Consistent Thickness
- Strong and reliable in dirty circumstances
- Combination of a finger and a stepped splice



Stepped Splice

- 75 - 85% strength of belt breaking strength
- Increased thickness
- Very strong and reliable
- Easy to prepare
- One running direction



Skived Splice

- 65 - 75% strength of belt breaking strength
- More 'stiff' than the belt
- Easy to prepare
- One running direction

Fastener methods



Wire hooks



Spiral lace



Steel lacing



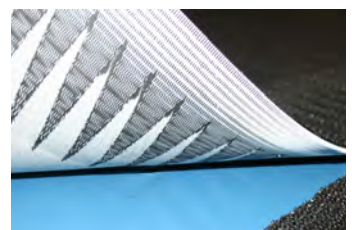
Staple lace

Maestro Splicing Equipment *for Fast and High Quality Splicing*



ZipLock

ZipLock is ideal for applications where belt replacement time is an issue, for example on airports and in distribution centres. Especially designed for application in inaccessible locations, such as conveyors at ceiling height, very short conveyors, built-in conveyors etc.



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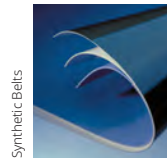
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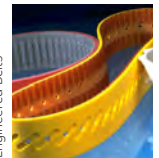
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**Expert advice, quality solutions
and local service
for all your belting needs**



Synthetic Belts



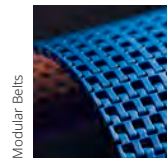
Engineered Belts



Endless Woven Belts



Homogeneous Belts



Modular Belts



Fabrication & Service

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