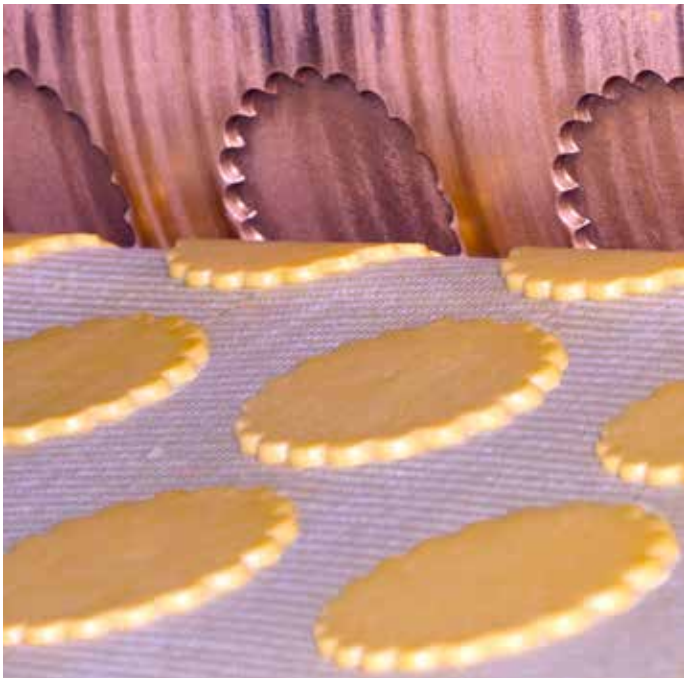
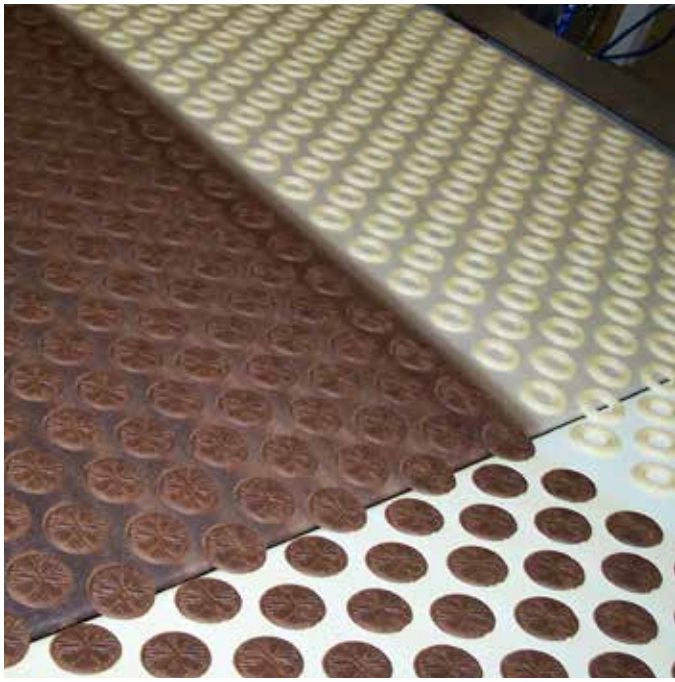
Ammeraal Beltech
Innovation & Service in Belting

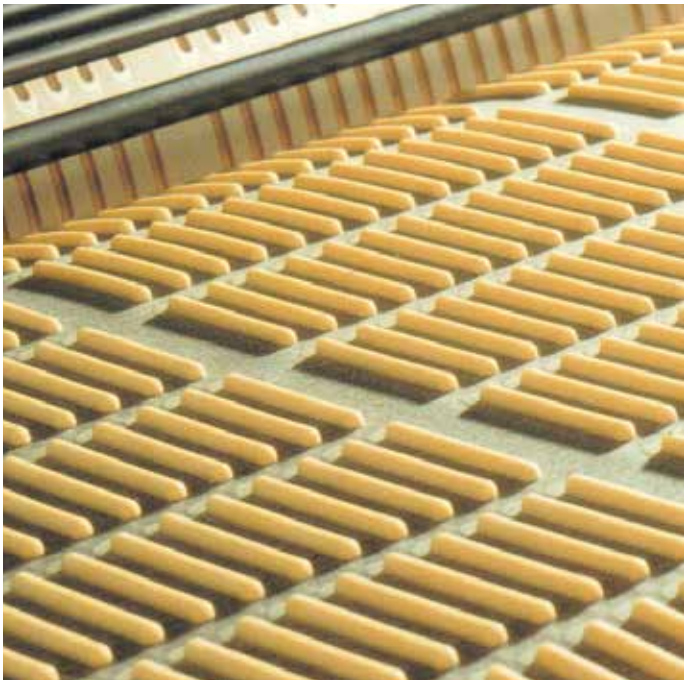
NA-EN

AmDough

Endless Woven Belts for Biscuit Bakeries







Innovation and Service in Belting

Learn more about our innovations

Ammeraal Beltech knows about industrial bakeries. When the company was founded in 1950, the first belt ever produced was an Endless Woven bakery belt. Since then, we have been gathering experience and expanding our knowledge, and all of this benefits our customers.

Ammeraal Beltech is a major supplier to the food industry in general and to biscuit bakeries in particular.

The biscuit bakery industry requires high-performance and long-lasting dough handling belts. Ammeraal Beltech is a reliable supplier of both.

One basic demand in bakeries is that the dough should not stick to the conveyor or process belt. Two methods of dough forming are an exception:

- **Rotary molder**
- **Rotary cutter**

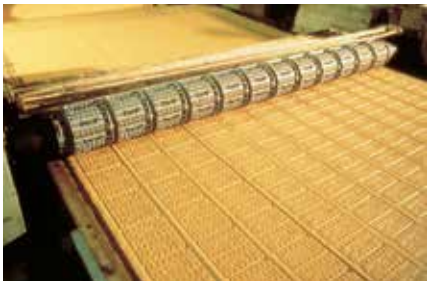
Bakery production

Extraction process

Dough is pressed into a rotating molder drum that forms the shape of the biscuits.

- The belt is squeezed between the molding and pressure drums.
- Then the belt releases, creating a suction effect at the same time.
- Moisture and fat from the dough are absorbed into the belt so that the molded dough sticks to the belt.
- The formed dough then travels with the belt and is extracted from the molding drum.

Cutting process



A rotating cutter (or knife) cuts the biscuit shape into the layer of dough.

- The layer of dough is transported over the belt.
- As the dough passes the cutting drum, the biscuit form is cut out and pressed onto the belt.
- The remaining dough around the biscuits is guided onto a separate scrap conveyor belt for re-use.
- The biscuit forms are then transferred to the oven feeding belt.

Release process

At the end of both processes, the belt is pulled over a knife edge.

- Moisture and fat are forced to the top surface of the belt, thus forming a film.
- This effect, combined with the sharp bending and stretching of the belt over the knife edge, releases the fragile biscuit dough from the belt surface so that it can continue to the oven.

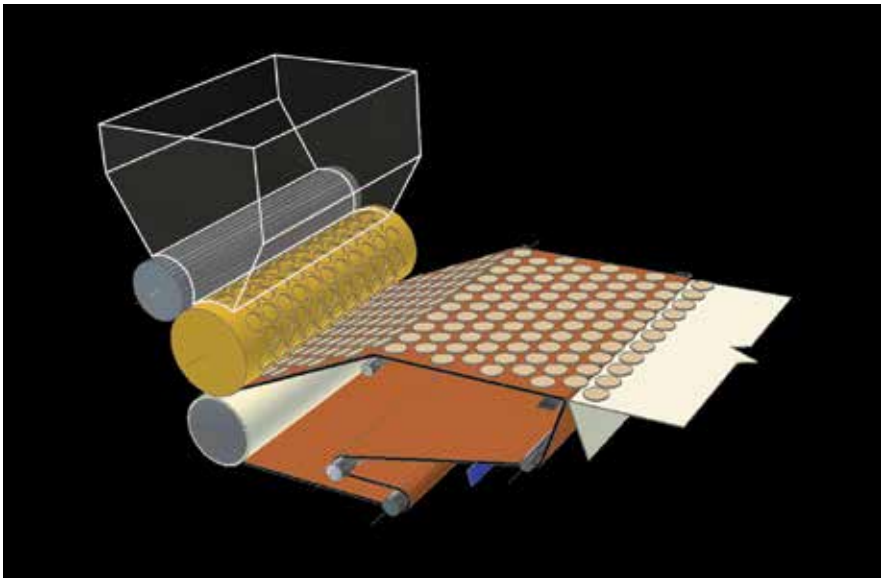


Diagram of a rotary molder

Ammeraal Beltech member European Hygienic Engineering & Design Group

How to select AmDough Endless Woven Belts

The extraction and release characteristics are determined by three main factors:

1. Absorption capacity

This is determined by the content and combination of materials: cotton, flax, polyamide and polyester. Cotton and flax can absorb 20 to 25% of moisture, polyamide 4% and polyester 0.4%.

The belt with the highest absorption capacity is the AmDough 100.

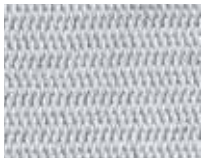
Maximum extraction performance from the molder drum requires a high absorption factor, and best release characteristics on the knife edge transfer call for a low absorption factor. This means that an ideal balance is needed to achieve both good extraction and good release. When different dough types are processed on the same line, one of the two universal AmDough Belt types can be used.

2. Weave pattern

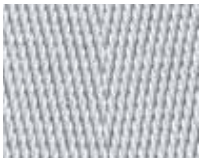
The pattern and amount of air between dough and belt influence the dough release. Plain and twill weave have a more open surface than broken twill. The weave type to be applied depends on the composition and shape of the dough.

3. Belt thickness

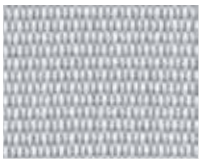
A thinner belt can run over the smallest knife edge and follow its shape very closely to allow for good release of the thinnest products.



Broken twill weave GK
Equally spaced air pockets



Twill weave K
Air grooves in herringbone pattern



Plain weave P
Lateral air grooves

Standard product range

Belt type	Material	Weave	Belt thickness	Diameter of knife edge < 135°	Article code	
AmDough 100	cotton	broken twill	2.8 mm	5 mm	GK 1283B	
AmDough 90	cotton	broken twill	2.4 mm	4 mm	GK 0983B	
AmDough 80	cotton/ polyamide	broken twill	2.4 mm	4 mm	GK 8484BP	
AmDough 70	cotton	plain	2.0 mm	3 mm	P 1284B	
AmDough 60	cotton/ polyamide	broken twill	2.4 mm	4 mm	GK 0983BP	universal type
AmDough 50	cotton/ polyamide	plain	1.8 mm	3 mm	P 8484BP	universal type
AmDough 40	cotton/ polyamide	plain	2.0 mm	3 mm	P 1284BP	
AmDough 20	cotton/ polyester	plain	2.0 mm	3 mm	P 4060BE	

There is a linear relationship between the AmDough absorption numbers:

Heavy dough • wet • high degree of moisture • AmDough Belt with higher absorption factor
Light dough • dry • low degree of moisture • AmDough Belt with lower absorption factor

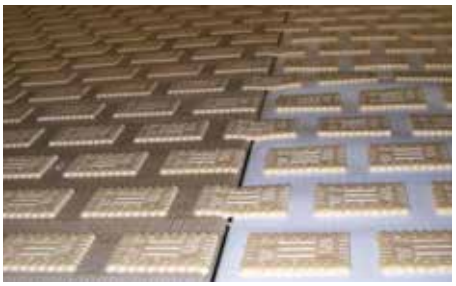
Top side: always uncoated
Bottom side: PUR transparent food grade impregnation for stability, better wear resistance and longer belt life
Belt edges: reinforced polyamide selvedges
Dimension: length up to 100 m, width up to 3400 mm
Broken twill types (GK) are also available as Twill (K) versions.

Why choose an Endless Woven AmDough Belt?

- **Less headache, better yield and longer life**

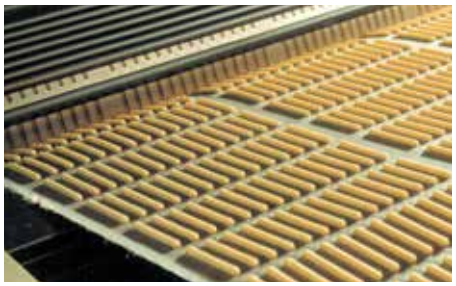
AmDough Belts are manufactured to high quality standards. The bottom side is impregnated with wear resistant PU to maintain the belt shape and to prevent narrowing. Cord yarns are used to increase wear resistance, and polyamide to reinforce the selvedges. Strong flax yarns in the weft ensure lateral stability. As a result, their extended belt life and continuous absorption capacity make the Endless Woven AmDough Belts very cost-effective.

- **Trouble-free dough processing**



The main benefit of Endless Woven AmDough Belts is the absence of a splice or seam, thus ensuring continuous absorption and smooth product transfer. Scrapers can easily remove remnant dough without damaging the belt.

- **Consistent product quality**



AmDough Belts have consistent extraction and release properties. Biscuit tails are limited to a minimum because low drum pressure is required to get optimum demolding. These characteristics ensure smooth biscuit transfer without any interruption or deformation of the formed dough.

- **The optimum solution for every dough type**

Endless Woven AmDough Belts are suitable for all biscuit dough types. Their components are safe and transmit no colour, taste or smell to the biscuit products. The absence of antistatic fibres means that the belts can be used in combination with metal detectors.

Ammeraal Beltech

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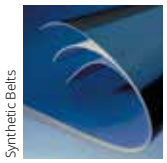
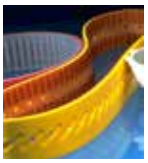
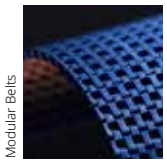

Synthetic Belts


Engineered Belts


Endless Woven Belts


Homogeneous Belts


Modular Belts


Steel & Plastic Chains

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