



CELLULOSE / PRODUCT GUIDE

ViskoTeepak in brief.

ViskoTeepak is one of the biggest manufacturers of fibrous, cellulose and plastic casings in the world. We have production plants, converting facilities and technical support offices worldwide. We're also proud to have the industry's largest business-partner network, through which our products are offered in nearly 100 countries. Our head office (ViskoTeepak Holding Ab), which opened in May 2018, is located in Mariehamn, in Finland's Aland Islands.

In Europe, we have fibrous and cellulose production plants in Lommel (Belgium) and Hanko (Finland). Additionally, we have a plastic-casing production plant in Nuevo Laredo (Mexico). Our converting facilities are located in Delfzijl (Netherlands), Brno (Czech Republic), Kenosha (Wisconsin, USA) and Poznan (Poland). Our sales and representative offices are located all around the globe.

ViskoTeepak is owned by the Eriksson Capital Group, based in Mariehamn, Finland. Eriksson Capital is a small to medium-size high-tech industrial companies operating in the global marketplace. Eriksson Capital is active in various industries such as medical tubing, shipping, real estate, aircraft leasing and asset



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Statement .

ViskoTeepak verifies that all information given in this product guide is based on our best knowledge and information. ViskoTeepak does not guarantee the accuracy and/or completeness of the information. This guide is solely intended for general information and is not intended to be used as the primary basis for commercial decisions. When starting to use ViskoTeepak products, it is always recommended to complete a product qualification process. The risks associated with the use of ViskoTeepak products is limited to the conditions



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defined in the "General Sales Terms and Conditions". These can be consulted at ViskoTeepak.com.

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The evolution of ViskoTeepak.

Visko Teepak

Always around



1950

Gunnar Eriksson was enjoying a famous Scandinavian smorgasbord on a ferry boat in between Finland and the Åland Islands. While enjoying a tasteful sausage, he noticed the casing was made artificially which caught his interest. He got so curious he put a piece of the casing into his pocket and had it analyzed in a laboratory.

1965

The converting center in *Delfzijl, Netherlands* opened.

1962

Visko started to manufacture fibrous casings.

1952

Gunnar became convinced artificial casing was the future. He wanted to take part in this industry and raised some money to start the Visko Company in Hanko, Finland.

Visko started to manufacture cellophane casings with just 30 employees.

1975

The cellulose and fibrous manufacturing plant in Lommel, Belgium was established.

1994

The cellulose converting center in the *Czech Republic* opened.

1995

Production of Nova plastic casing started.

2007

The current owners of ViskoTeepak believed in the future of the industry and were willing to create a world-leading seller, producer, and supplier of artificial casings.

By merging Visko and Teepak into one, a new era began!



2052 - The Future

ViskoTeepak is 100 years old! We are now serving your casing needs around the globe in just minutes with our new drone delivery service!

Giò



Today

ViskoTeepak is #MakingFoodMoreAccessible by tailor-making productive solutions in close collaboration with the global food chain.

2

2020

The fibrous converting center in Poznan, Poland was acquired.

2014

The fibrous converting center in Kenosha, USA merged with ViskoTeepak.



2011

The sales and logistics center in Hamburg, Germany was acquired.

Brand Cornerstones.

ViskoTeepak is a global brand with a local touch that delivers tailor-made productive casing solutions. We understand the needs of our customers and nurture long-lasting mutually beneficial and rewarding relationships. What are we referring to when we talk about our Brand Cornerstones?

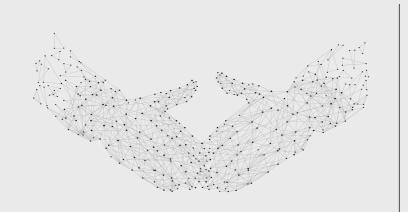
Company culture.

The company culture is the personality of the company. At ViskoTeepak we base our business and our culture on three company Values: Trust, Ambition and Fun. What do we mean when we talk about these values?

Brand Cornerstones

Tailor-making

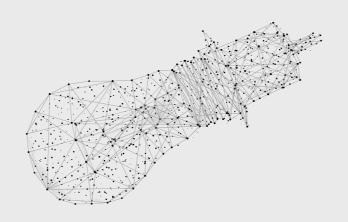
Our goal is to tailor-make the most productive casing solution for each customer. We're willing to go the extra mile to craft each product to perfectly fit our customers' needs. This makes our products unique and gives our customers the ability to produce with great efficiency and high quality.



Productive Solutions

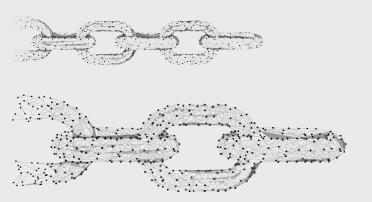
We offer the world's most productive casing solutions. We constantly improve and develop new solutions that bring value. We're creative, and we sustainably develop our products.

If there's a better way, we'll find it.



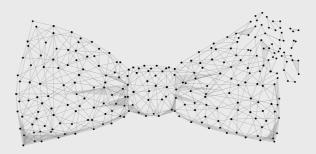
Ambition

We have a strong desire to be the best and want to be ambitious on our road to success. That is why we will walk the extra mile to help our customers and partners to succeed in their business. Our "can-do" mentality creates energy and by providing training and development opportunities, we make sure we reach our goals.



Teamwork

Our success is achieved with inclusiveness and collaboration. We work closely with our customers so that we can identify their specific needs. We're in it for the long run, and together with our Partners, we'll always be around to support you.

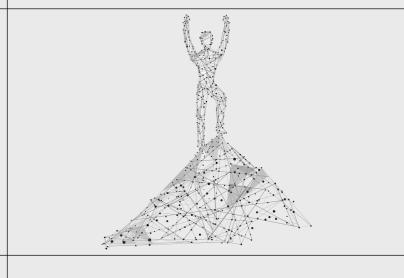




Values

Trust

Trust is built on credibility, being fair, and treating each other with respect. We earn trust by delivering on our promises, which is particularly true for how we manage our business and our people. Respecting your colleagues regardless of their age, sex or race is a base requirement for a fair working community.



Fun

Fun is created by being successful in achieving your goals and by working with a team of people that you trust and feel connected to. It creates the energy that we need for taking on the next challenge!

What is Wienie-Pak?

Wienie-Pak is a shirred cellulose casing used for the processing of all kinds of Frankfurters, hot dogs, beer sausages, mini-salamis and similar skinless sausages. With Wienie-Pak, we seek to provide you with the most efficient cellulose casing on the market.

Cellulose casing

Wienie-Pak casings are made of regenerated cellulose that's extruded to create a strong, tough small-caliber product ideal for wiener and frankfurter type sausages. Wienie-Pak casings are smoke, air and moisture permeable, so they provide customer satisfaction with consistent quality and utmost efficiency time after time.

Wienie-Pak is available in all sizes. The casing can be delivered clear, transparent, as well as in various colors. It can be manufactured with stripes or printed. The product can be supplied in a variety of lengths, with different types of end closures. It can be tailor-made according to specific requirements, depending on the customer's needs.

High yields and a nice look

Wienie-Pak casing is supplied to meet various stuffing requirements. It is available in transparent form and in several different colors and can be supplied with stripes. These stripes are very useful for identification and food safety purposes. They are available for all current codes and strand lengths as well as in different colors.

When properly selected for your product, the casing will ensure an efficient stuffing process and increased productivity. Proper, efficient thermal processing of your product will facilitate best overall productivity. The casing is usually peeled off after the smoking and cooking cycles have been completed.

When using Wienie-Pak as final packaging, the casing can also be printed in one color with the customer's logo or in line with customer-specific requirements to achieve a more attractive final product. One or both sides can be printed.



Tailor-made products

Wienie-Pak is available with two different types of internal coatings: Smash and Rapid Peel (RP). The Smash coating is primarily used in applications where peeling requirements are low, or in situations where the product isn't peeled during production. The Rapid Peel coating is designed for use in applications where fast, efficient peeling is required.

We can tailor-make our Wienie-Pak product towards the needs in your product or production process. We can provide a casing for use in an application with maximum horn diameter for increased efficiency of the stuffing operation.

For high-speed stuffing equipment and fully automatic lines, we can offer different types of closed ends and we shirr with open ends for use in manual stuffing operations. Wienie-Pak can therefore be tailored to meet the demands of both big and small producers as well as precise, fast production processes.

Read the product pages in this brochure to learn more about our Rapid Peel and Printed casings. If you want to know more about our tailor-making capabilities, please view the product options page in this brochure.

Sustainable product meeting logistics needs

ViskoTeepak can offer various packaging types and alternatives to suit the user's convenience as well as to minimize any negative ecological effects or sustainability issues. The different packaging alternatives can lead to significant savings in shipping costs due to weight and volume reductions. We can even offer logistical solutions with zero cardboard waste.

With Wienie-Pak cellulose casing, there are no wastedisposal problems. The casings are biodegradable and suitable for composting. With effective logistics and ecologically friendly disposal routes, Wienie-Pak is a product that conforms to ViskoTeepak's way of looking at our environment and how we work to achieve sustainable development.

A perfect solution.

Wienie-Pak cellulose casing seeks to improve and streamline customer productivity, yield and quality requirements. The yield and quality are dependent on the sausage-making process and how the casing performs. Requirements are also driven by the internal need for efficient, consistent production.

Requirements

The requirements of the Wienie-Pak cellulose casing and different products are primarily determined by the sausage-making process. This means taking into consideration how the casing will perform in stuffing, during the thermal process, during peeling and in packaging.

Faster stuffing

From the stuffing stage in Wienie-Pak, the strand of casings should have the largest possible inner diameter in order to suit the biggest possible horn for faster stuffing at highest level of quality.

Maximum length in the shortest strand

To maximize the output in stuffing operations, we always seek to provide the longest possible casing length with the shortest possible strand length. This will allow for uninterrupted stuffing, and with minimum interruptions you'll enjoy higher productivity and better flow in your operations. ViskoTeepak always aims to keep the highest quality in all our Wienie-Pak products.

A high-tech product

To maximize the benefits Wienie-Pak can bring to your production process, it is important to analyze the production process and parameters. Based on the variety of choices, we can select the most suitable casing for your process. Recent developments in casing production technology have allowed ViskoTeepak to make the optimal combination of horn diameter, casing length and strand length. Finding the optimal combination of these parameters for your stuffing and processing equipment can lead to significant gains in efficiency and productivity.

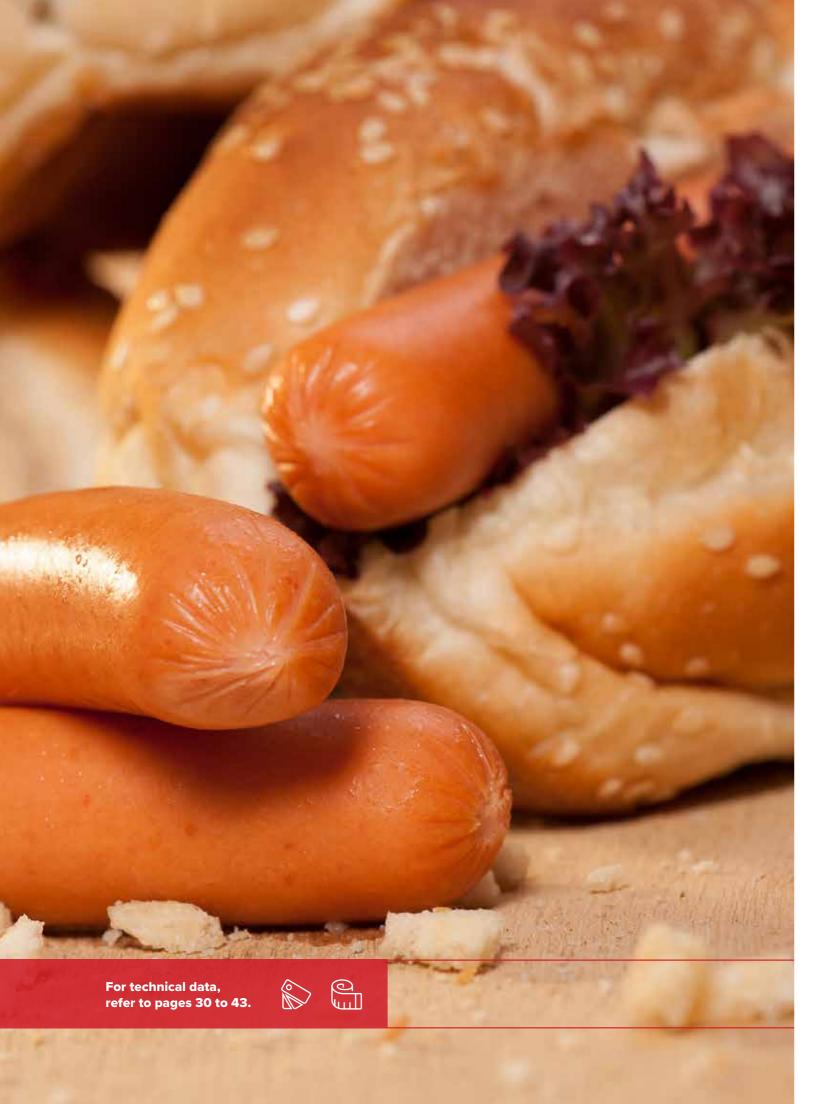
We want to help

Since there are many parameters to take into consideration, we have made it our task to help in any way we can. To be able to maximize your process performance and develop a perfectly tailored product for you, we will need to know some basic data. This is always necessary for successful development of a newly ordered casing. Please see the Wienie-Pak request form at the end of this brochure for more information.

This form has been developed to make sure all the necessary information is gathered and documented to lead to the fastest possible product development and provide you with our solutions in a convenient way. You can fill in this form by yourself or with the help of the ViskoTeepak partner in your area. When this information reaches the responsible ViskoTeepak Sales Manager or ViskoTeepak Customer Sales coordinator, we will make sure the development starts immediately. The result will be the most productive solution for you.



ViskoTeepak / Wienie-Pak – 11



Easy and fast peeling with Wienie-Pak Rapid Peel.

The Wienie-Pak Rapid Peel casing facilitates easy peeling in skinless frank production. Wienie-Pak Rapid Peel is treated to meet the demands of modern sausage manufacture. It allows for peeling in the most demanding conditions and at extremely high speeds. In combination with the correct size and construction of the casing, we can maximize your output and reduce the production costs.

Tailor-make your solution

The differences between competitors in cellulose casing are often small and subtle. Therefore, it has to be tailor-made and optimized to the customer's needs. We believe this is the best way to benefit from the advantages of Wienie-Pak and we are constantly working on developing more solutions to meet future tightening customer requirements.

It goes without saying that the optimal product is always developed in close cooperation with the customer that will use it. When working with the biggest partner network in the business, we can tailor the optimal Wienie-Pak solution. In this high-volume business, little differences can have a big impact.

Build your benefits on the unique features of Wienie-Pak

At ViskoTeepak, we never compromise on quality and product features. This has resulted in a casing that can add subtle but important benefits to your operation and product.

Once the customer understands how to use these casing features, it will be highly unlikely that an alternative will be chosen. Some of the most noteworthy factors are described below:

Features	B
Easy peeling in demanding applications	In
Applicable for soya and starch products	E
Tailor-made RP solution, Kosher for Passover	M
Non-mineral oil version	F
Applicable for dry salami	S
Improved strand stability	Р
The most convenient for final users	Т

Improve your yields with less twists

More than any other cellulose casing, Wienie-Pak has the tendency to shrink back and tighten around the sausage after stuffing. This benefit can be used in multiple ways. By itself, it can result in a nicer-shaped sausage with excellent shoulder formation and overall definition. If this is not considered a critical parameter, it is possible to reduce the amount of twists during linking. For example, if a normal process requires two twists, the yield improvement in stuffing can be significant. When twisting two times with six sausages in a pound, 7.4% of the casing is used in twists. When reducing the twists to a maximum of 1.5, the loss of casing use is reduced to 5.5%, improving the yield by 1.9%.

Smoke faster and improve the bite

Wienie-Pak has a high permeability to smoke, which can result in reduced smoking time. Even with the reduction of smoking times, the improved permeability of Wienie-Pak can result in similar skin and color formation compared to other casings, but it does so with shorter processing times. Depending on the emulsion parameters and processing conditions, our test cases have shown improvements of up to 10%. Moreover, because of our unique extrusion technology, better sausage skin formation can be achieved. This creates the potential for steam reduction during peeling.

Benefits
mproved yield due to peelability
Efficiency in peeling of vegetarian sausages
Meets the requirements in all countries
Fulfills customer's certification requirements
Steamless application
Process stability, yield and total profitability
The most appropriate solution for peeled products

Increased food safety with Wienie-Pak D-Tech.

Wienie-Pak D-Tech is designed for full automation, process control and maximum speed. The goal was to develop a casing solution that would make it easier for sausage producers to detect pieces of casing in peeling operations, while still being able to track the sausage color formation during processing. The result was a completely new innovation in the world of casing.

Eliminate casing fragments

In the production of skinless sausages, it is essential to guarantee that all fragments of the casing are removed from the surface of the sausages after peeling. Accordingly, ViskoTeepak has developed a variety of casing types that let producers confirm full casing removal.

Make detection automatic with D-Tech

At the top of the Wienie-Pak line, and unique in the industry, you'll find Wienie-Pak D-Tech. The project has been developed in tandem with our partner company Tomra, which is a pioneer in sensor development for food-sorting, recycling and other industries. The company has more than 60 years of experience as a provider of high-performance sorting, peeling and analytical solutions and is a global market leader with more than 5,000 of its systems installed at food growers, packers and processers worldwide.

D-Tech't it

This type of casing contains a special component in the full body of the casing. This component leaves the casing fully transparent under normal conditions, but it creates strong reflections that can be used for automated sorting with Tomra Genius optical and sensor-based

detection systems.

During sausage processing, the color formation can be monitored as with a regular clear casing. Additionally, the casing is fully colored when under suitable conditions, and every piece can be clearly detected. Perhaps the biggest advantage is the fact that this casing allows for full automation of the detection and eventually the separation process in combination with the correct equipment.

A complete cellulose casing portfolio

The requirements in food safety will continuously increase. ViskoTeepak can provide the most complete range of cellulose casings to help reduce the environmental exposure from manufacturers. We take these concerns seriously and, by doing so, provide support for a long-term sustainable business. ViskoTeepak cellulose casing can be delivered in various styles: colored, striped, printed and with various closed ends.

With D-Tech development in combination with the Genius system, it is also possible to detect shapes and other deviations, and you can automatically sort based on the combined input of D-Tech casing detection, shape and quality deviation.

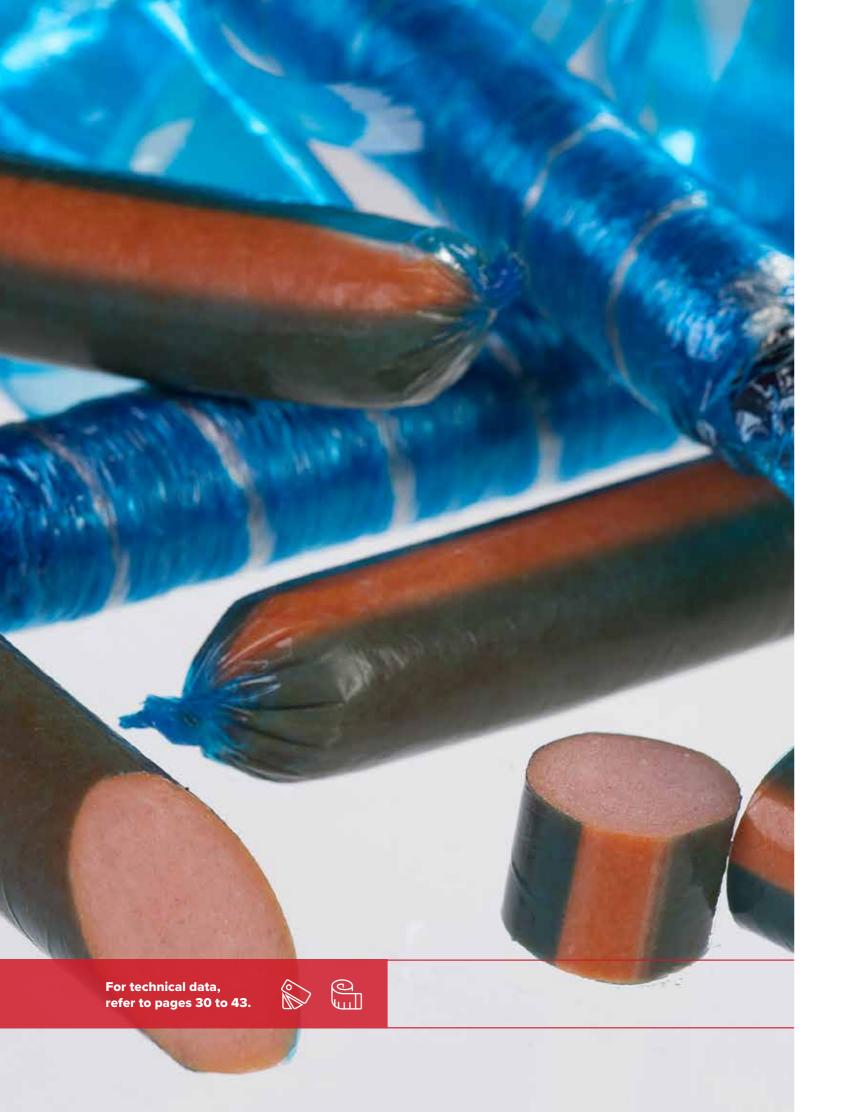
Features	Benefits
Detectable by UV light	Top product concerning food safety
Designed for a fully automatic sorting system	Eliminates human errors and labor costs
Automated sorting by Tomra machine	The highest yield with easy quality control
Available in all casing constructions	Efficiency to fit requested stuffing diameter
Possible combination with stripes	Product identification, chicken, pork, beef
Full Wienie-Pak size range	Perfect adaption to all stuffing processes
	Highest precision prevents contamination claims







For technical data, refer to pages 30 to 43.



Ultimate process control with Wienie-Pak Window.

Wienie-Pak Window casing is designed for ultimate process control while keeping maximum speeds. The goal was to develop a casing solution that'll make it easier for sausage producers to detect pieces of casing in peeling operations, but still being able to track the sausage color formation during processing.

Improve the food safety

The Window casing is designed to meet the increasing requirements in food safety. Particularly in the production of skinless sausages, it is very critical to guarantee that all fragments of casing are removed from the surface of the sausages after peeling. By using pigments in about 80% of the casing it is possible to verify that all casing is peeled. With 20% still completely transparent, it is still possible to follow color formation in processing.

We recommend this type for applications where a high level of food safety is required, but that are not subject to extremely difficult peeling conditions.

Skinless sausages

Wienie-Pak casings are used to produce skinless type sausages, in a large variety, ranging from frankfurters and hot dogs to mini-salamis and much more. The types

The Window casing is designed to meet the increasing requirements in food safety

Features	E
Blue, red or green colored casing with 10 mm clear window	(
Smokable and moisture permeable	ι
Enhanced detectability compared to striped casings	L
Applicable to the full Wienie-Pak range	S
	F

of sausage made are often very different depending on the eating habits of the region, the type of meat emulsion used and the processing conditions. At the end of the process, before the packaging step, in most cases the casings are peeled off at the production facility. The efficiency and completeness of the peeling operation can be influenced by many factors such as the condition of the peeler or the cooking and smoking parameters.

A complete cellulose casing portfolio

The requirements in food safety will continuously increase. ViskoTeepak can provide the most complete range of cellulose casings to help reduce the environmental exposure from the manufacturers. We take these concerns seriously and by doing so, provide support for a long-term sustainable business. ViskoTeepak cellulose casing can be delivered in various constructions, colored, striped, printed and with various closed ends.

Benefits

- Combination of easy casing detection and sausage color visibility
- Uniform sausage color formation
- Less risk of casing flakes in final products
- Combination of product control in process and food safety after peeling
- Prevents contamination claims

Optimized visibility with Wienie-Pak Multicolor.

Optimize your visibility in the market with the highest quality multiprinting on ViskoTeepak Wienie-Pak casings. Our highly productive and easy handling cellulose casing can be tailored with customer-specific printing options.

The outlook matters

ViskoTeepak offers the multicolor printing options for an increased appeal of your products. It can be printed with customer logos or in line with customer specific requirements to obtain a beautiful, attractive final product. It combines excellent technical characteristics with the possibility to print according to requirements. We offer a complete range of colors, and will precisely match the design you desire.

Use your casing for branding

In a number of countries, a popular option is to sell the finished sausage with the cellulose casing on, leaving it for the customer to remove it prior to consumption. Where sausage producers attempt to garner brand loyalty, brand promotion on the casing is an excellent way to let the consumer know whose product they've purchased. So, it's a superb method of advertising the products.

Benefit from the new generation printing

ViskoTeepak multicolor printing creates completely new possibilities for more attractive final product presentation.

Multicolor printing of cellulose Wienie-Pak casing is manufactured with state of the art printing technique. The casing can be printed in up to six colors with customer logos or in conformity with specific requirements, thus achieving a high-impact final product. One or both sides can be printed. When both-sides printing is used, each side can be printed in up to six colors.

Innovation is tradition

The development of printing machines is driven by the goal of achieving the highest printing guality in the market. Top performance in consistency and manufacture of high-quality products has always been the top priority at ViskoTeepak, the new multicolor machine development is no exception.

The multicolor printing machine is equipped with a most advanced technology which brings highest-quality printing:

- · Continuous line printing possibilities
- Sharper printed edges
- Better uniform coverage of printed area
- Very effective IR drying system
- · Precise winding tension-control system

Features	Benefits
High-quality multicolor printing	High-quality branding
Printable in six colors, on both sides	A new way of advertising
Printing possible on colored casings	Very attractive final product
Printed casing is final packaging	Sell casing weight
	Product identification by the printed logo
	No secondary printed packaging needed
	Skip the peeling process, reduce production time
	Safety skin for hygiene





More attractive outlook with Wienie-Pak Colored casings.

When it comes to the Wienie-Pak casings, the range of possibilities for making skinless sausages look more attractive to the consumer is relatively limited. Colored casings are a universal marketing tool that can be used everywhere regardless of local traditions.

An old idea presented in a new dress

The fully colored casing is a good old idea presented in a new dress. A range of colored casings can be used to identify the product inside: yellow for cheese hotdogs, red for pepper sausages and white for mushroom wieners. Colored casings can also be used as food-safety tools in peeled sausage production. Because they're more visible, they contribute to issue detection and quality control in peeling operations when fragments of casing remain on the sausage surface.

Keeping the casing on the sausages within the packaging saves the peeling time. Moreover, the casing adds to the weight of the package. The colored casing is available in all calibers and as blue, green, red and white.

> Colored casings can also be used as food-safety tools in peeled sausage production

Features	В
Available in red, blue, black, green, white, pink and smoke variants	Ca (y
Smokable and permeable	U
Casing is final packaging	Sa
	Se

The technical improvements integrated into Wienie-Pak strands are barely visible to the consumer. Improved tab end and secured closed end, as well as the casing performance in the high-demanding peeling applications and difficult stuffing operations is what the sausage maker cares about and recognizes. So, a colored casing is the style to choose when it comes to combining all of the Wienie-Pak features and benefits with an attractive, functional look of the sausage.

Orders placed must meet minimum quantities.

Benefits
Casing color to identify the content of the sausage (yellow for cheese, red for peeper)
Uniform sausage color after peeling
Saves the peeling time
Sell casing weight

Attractive product with Wienie-Pak Printed.

Wienie-Pak Printed is a cellulose casing that combines high productivity and easy handling with the increased appeal of your products. It can be printed with customer logos or in line with customer-specific requirements to obtain a beautiful, attractive final product.

For non-peeling applications

The Wienie-Pak printed casing is designed for customers who sell sausages with the casing on, without peeling. It combines excellent technical characteristics with the possibility to print according to requirements. We offer a complete range of colors and can precisely match the design you desire.

Build your brand awareness

A very nice way to achieve visibility in the market and in stores is by printing your own brand on the casing. This can be combined with product identification for a complete and unique way of safely branding your product.

By using a colored casing as a base, an attractive package is created that will support and highlight your unique product in a very visible way in the retail chain.

Double-side printing

With Wienie-Pak, you never have to compromise profitability for the benefit of a great look. We can offer one-color printing on one or both sides, and as always the product is ready for use straight out of the box.

Eliminate packaging

Since printed Wienie-Pak can be used as the final packaging, an extremely environmentally friendly final product is created. Because Wienie-Pak is fully biodegradable, a packaging is created that has virtually no environmental impact and is hygienically safe when treated correctly.

Increase yields and reduce waste

Wienie-Pak has a unique and truly excellent combination of stretch and shrink properties. It's a great benefit because it helps maximize stuffing weight. Wienie-Pak is manufactured under a high level of quality assurance throughout the whole process and our goal is always to provide you with a superior quality product.

Get the customer's attention by printing your brand on the casing

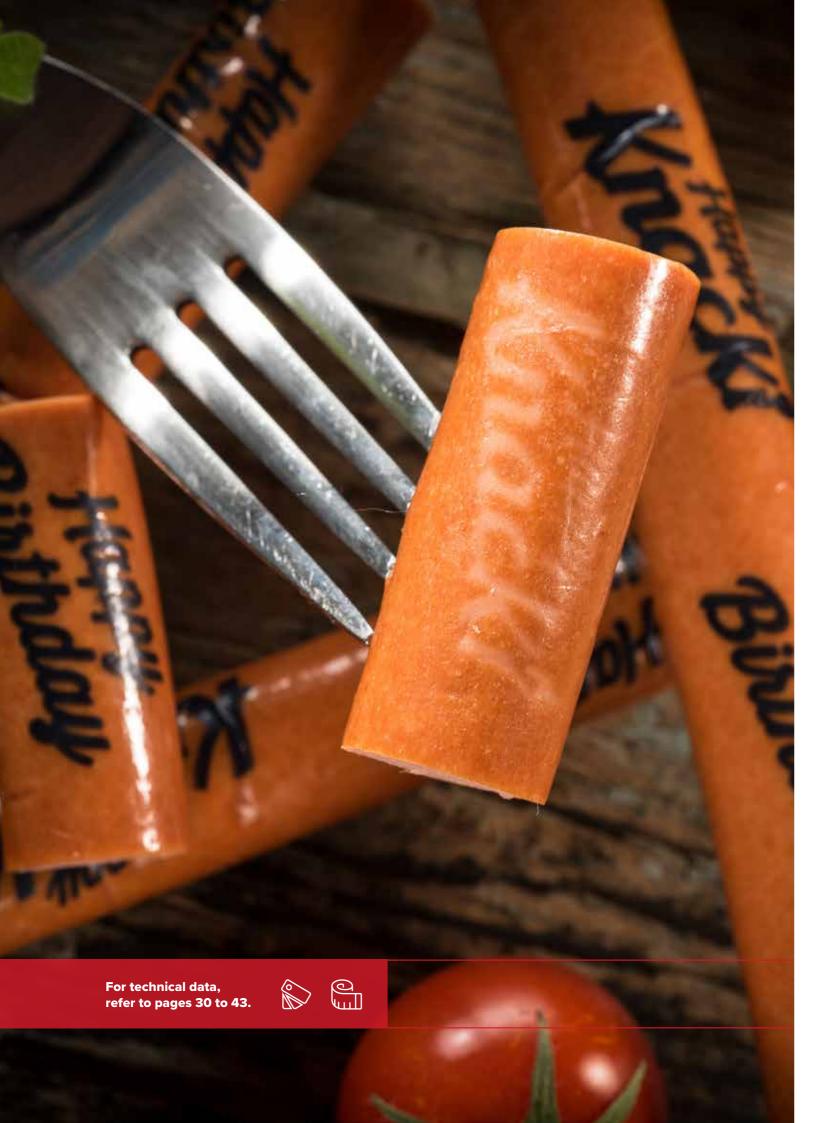
Features	Benefits
Printed in one color, on both sides	Branding
Wide caliber range	Brand protection
Printing possible on colored casings	Attractive single-color printed presentation
	Product identification by the printed logo
	No secondary printed packaging needed
	Safety skin for hygiene
	Sell casing weight



For technical data, refer to pages 30 to 43.







Boost your brand with Wienie-Pak LogoPrint.

Highlight your brand on both the casing and the actual sausages. The new ViskoTeepak LogoPrint casing provides you with the unique possibility to promote your brand by imprinting it on your final product.

Benefit from a unique promotional tool

A customer's logo or strap line is printed on the casing with a special ink that blocks smoke penetration, so that the logo or strap line will eventually appear on the peeled sausage as contrasting darker and lighter smoked contoured surfaces after thermal processing. The casing therefore allows for a completely new and attractive appearance while supporting the customer logo, product names or other advertising texts.

Achieve greater results with standard processes

Both traditional and liquid smoke can be used for this application. In the optimized thermal process, the surface is affected on all types of frankfurters, hot dogs and similar sausages. Call your ViskoTeepak representative to pick up your Wienie-Pak LogoPrint and give us the chance to develop and customize a new and innovative sausage product with you.

Features	В
Printed with special smoke-blocking ink	At
After smoking and peeling the area underneath the print shows up as a lighter surface	S
Available in all casing constructions and colors: O, G, W	In
	M
	A



Highlight your logo on the sausage and the casing



Benefits

Attractive appearance for successful business

Special marketing campaigns for certain specific results

ncreased brand awareness

Manufacturer and product differentiation

Advertisement

Color your sausage with Wienie-Pak TC.

TC (Transfer Color) casing is a Wienie-Pak cellulose casing that contains a colored dye, which is transferred to the surface of the sausage.

Benefit from a unique future technology

Wienie-Pak TC uses a state of the art technology that gives it a special property – a pigment transfer to the sausage surface during thermal processing. Sausages made with TC are very popular in a number of countries like the Philippines, South Africa, U.S.A., South America and Australia.

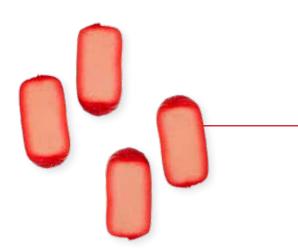
Tailor-make your casing

TC casing can be manufactured with Smash internal coating (SMH) where the product is sold with casing on or with Rapid Peel (RP) internal coating for applications where excellent peeling is required.

Use it for branding

TC casings can be printed with customer logos or in conformity with the customer's specific requirements to have a more interesting final product. One or both sides can be printed. ViskoTeepak is ready to develop any type of print design to meet the customer's requirements.

TC casings can aslo be delivered striped.



ViskoTeepak is ready to develop any type of print design to meet the customer's requirements

Features	Benefits
Contains a red dye that's transferred to sausages	Promotion tool for individual markets
Peelable	Allows to skip the smoke cycle
Printable on both sides	Desired outlook of sausages
	Saves costs by eliminating any separate coloring step for sausages
	Easy to use versus secondary coloring
	Branding





For technical data, refer to pages 30 to 43.



Long-Shirred products.

Nowadays, almost every industry requires constant development and suppliers of stuffing machinery for Wienie-Pak casing. Better and more powerful machinery is something that the industry is striving to find. Recently, many companies such as Townsend, Vemag, Handtmann, and Hitec have introduced new machinery to the market that needs a suitable casing for their performance and properties. The new machinery requires a change in the stuffing speed and parameters, which are now almost sixty centimeters, causing ViskoTeepak to develop long-shirred products.

What are these products

Long-shirred products are specific products that fit each customer's technology and equipment. A growing interest in longer products is specifically for Alkar and J-con lines - when more feet shirr into the same strand length. The same trend is in a larger hornfit, increasing the inside diameter of the strand while keeping the same strand length and number of feet. ViskoTeepak's shirring machine development allows us to prepare for the new challenges in the market. The number continues to grow, while Wienie-Pak's longest strands are already achieving 56 cm.

Optimalisation and cost effect

Long-shirr products bring many benefits to those customers who have the newest technology suitable to stuff these products. The most significant benefit is

> The most significant benefit is the overall improvement in production output and efficiency, thanks to multiple extra portions per strand and considerable savings in the time required for reloading strands.

Features	Be
Tailor-made products for every application	In pla
Improved strand surface and strand coherency	Сс
Strand length up to 56 cm	M
Wide range of products 200 – 250 feet	Fa
Applicable for the majority of Wienipak sizes	Le op
Applicable to all Wienipak colors, stripes, peeling solutions	Le

the overall improvement in production output and efficiency, thanks to multiple extra portions per strand and considerable savings in the time required for reloading strands. Other significant benefits are less waste generated during knotting on both sides of the strand after stuffing. Long-shirred products also mean less work for the stuffing operators. Production efficiency is one key parameter that is easily improved thanks to the larger hornfit - strand inside diameter. A larger hornfit means a larger stuffing horn used, causing the stuffing speed to increase immediately. An increased stuffing speed means more portions are produced within the same time.

Benefits
ncrease efficiency, yield and daily output in meat plants
Cost reduction
Nore meters in a carton, bulk
Faster stuffing thanks to larger hornfit
ess casing waste after stuffing generating by stuffing perators during making knots on ends
ess work for stuffing operators

Product options.

Printed casing

We can offer you one-color printing on one or both sides. Print your company logo or the list of ingredients and use Wienie-Pak as the final packaging. You never have to compromise profitability for the benefit of a great look, and as ever it is ready to use straight out of the box.

Color options

ViskoTeepak offers two options from which to choose. Wienie-Pak casings can be delivered with stripes or in solid colors.

Solid-color casings

Solid-color Wienie-Pak casings are widely used in the industry. The pigments used are integrated in the casing structure for safety. Here are the main reasons to use solid-color casings:

Peeling control: In addition to the control options that stripe casings can provide, a solid blue colored casing provides 100% coverage of the sausage surface. Thus, any risk of small pieces of the casing remaining on the final sausage can be prevented.

Appetizing look: When the sausages are sold with the casing on, a smoke color can provide a more appetizing look. Often, these colors are combined with printing for a very appealing product and brand strengthening.

Colored stripes

The Wienie-Pak stripes are manufactured using patented technology. The stripes are embedded in the casing structure during extrusion. This guarantees that there is no risk of contamination of the sausages. There are two main reasons why stripes are selected:

Product identification: Often, multiple types and qualities of sausages are manufactured in the same production line. Stripes provide an excellent way of identifying the production. This is achieved through a wide range of possibilities provided by a combination of different colors and amount of stripes on the casing. We offer 6 different colors and 1 to 6 stripes on the casing circumference.

Peeling control: To minimize the risk of small pieces of casing remaining on the sausages after peeling, a contrasting stripe color can be used for easy detection after peeling. This can provide an extra guarantee against contamination of the final sausage with fragments of casing.



See color books for the most accurate color sample

Color options

Solid colors			Striped colors	Window colors	тс	
Clear	Smoke ultra light	Blue	White	Blue/clear	Red	
Smoke light	Smoke V	Pink	White smoke light	Red/clear		
Smoke medium	Blue	Black	Black	Green/clear		
Smoke dark	Red		⊜ Blue			
Smoke gold	Green		e Red			

Size Choices

ViskoTeepak Wienie-Pak has a complete range of sizes, from the smallest caliber 13 for mini-salamis and snack products to 40. So, we have a casing for every size demand in the market.

Construction types

Wienie-Pak casings are used in a wide range of applications, but it's necessary to modify the casing to fit the demands of the application perfectly. To achieve that goal, we've developed casings with special properties.

End-closure types

Wienie-Pak strands can be delivered with OE (open end) or CE (close end). Strands with OE are manufactured for use in manual stuffing operations. Strands with CE are especially designed for use on high-speed stuffing equipment. Wienie-Pak can therefore be tailored to meet the demands of both big and small companies and for precise, fast production processes.



Open-end

Wienie-Pak Open End casings are mostly used in butcher shops, with manual stuffing equipment. The use of these types of casings is very similar to the use of a natural casing.



Standard (CE)

This is the most versatile type of end closure for a wide variety of automated stuffing equipment. The CE type is unique in the industry because it is a solid and reliable closure that contains a vent hole. This allows for very fast entrance of the stuffing tube in the strand without any risk of premature release of the closure.

The following types are available:

W = most elastic casing for cocktail sausages

- **O** = standard construction
- **G** = designed for smallest caliber sausages
- J = designed for use on twist linker

The standard O-construction can, in most cases, be applied for optimal performance. Specific types of processes may require special variations, however, so it's best to discuss your needs with your ViskoTeepak representative so that the best casing can be chosen. Not all variations are available for all calibers.



Push Pak (CE-PP)

The Push Pak closure is most often used in stuffing applications where there is a risk that the meat emulsion might leak through the vent hole of the CE closure. This can occur in circumstances where a liquid meat emulsion is used. It is mainly used on stuffing machines with brake.



Knotted (CE-KN)

The Knotted Closure provides the most complete and ultimate closure on the market. It is suited for all types of stuffing machines. With this closure, there is virtually no casing/product loss at the beginning of the strand during stuffing. It also provides the possibility for a first usable link.

Packaging options.

Wienie-Pak casings can be delivered in various types of packaging, depending on the customer's demands and priorities. They can be delivered in cardboard boxes (cartons), cardboard pallets, wire cage bulk or boxer packs.



Cardboard boxes (available in all markets)

Normal cardboard boxes are the standard means of packaging. A box can contain any amount from 2,820 to 12,195 meters (9,252 to 40,010 ft.), depending on the casing size and length.

Butcher packs (available for small volume business)

Butcher packs are cardboard boxes designed for packing up to one bundle. It's the best retail unit for small customers/butchers, purchasing less than one standard cardboard box. Normally few small bundle boxes are put in a bigger carton box containing 6 or 8 pcs. Available for casing lengths between 50 and 70 ft. delivered in the form of open-end strands.

Sample boxes (available in all markets)

When a few sample strands are needed for the first test, these can be sent in a small cardboard box. Available for strand lengths up to 460 mm.





Cardboard bulk (available in Europe and Africa)

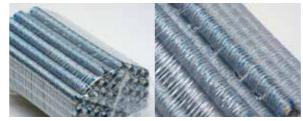
Cardboard bulk is offered for customers who want to purchase larger quantities with significantly reduced packaging waste. In this type of packaging, the casings are packed in a pallet-sized cardboard box, which significantly reduces the shipping and handling cost and has a much less environmental impact. Cardboard bulk can contain between 30,000 and 150,000 meters (98,500 to 492,126 ft.) of the casing, depending on the casing size and length. It's available on request, but a certain degree of customization is required.

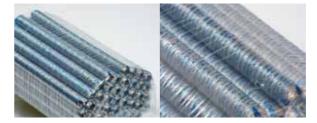












Wire-mesh bulk (available in Europe)

With wire-mesh bulk the cardboard can be completely eliminated. The bundles are packed in a sturdy wire cage in one or multiple tiers, depending on the wire cage height. The lower tier is formed with vertically stowed casing bundles, while the upper tiers can be both vertical and horizontal. This type of packaging must be returned after the use of the casing. Wire bulk can contain between 30,000 and 192,060 meters (98,500 to 630,118 ft.) of the casing, depending on the casing size and length.

Boxerpac (available in Germany)

With Boxerpac, the cardboard can be completely eliminated. The bundles are packed in a plastic box in one or multiple tiers, depending on the size of bundles. A Boxerpac consists of a lower part (skid), collapsible sides and a lid. The footprint dimensions are the same as the EU pallet size. A Boxerpac can contain up to 113,020 meters (370,801 ft.) of the casing.

IGH foil (available in all markets)

Each bundle is packed in plastic foil that maintains the strands in the defined hexagonal shape. This primary packaging also protects the strands against contamination. However, the packaging doesn't maintain the humidity level within the bundle. To retain the moisture in the bundles, LDPE bags are used. The bags are used for bundles shipped in all types of carton boxes or other types of packaging.

Perforation (available in all markets)

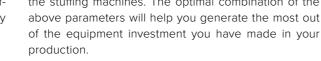
The main function is to make bundles easy to open when loading strands in hopper during stuffing. Based on customer's demands and priorities, the perforation can be applied manually, in the form of EZPAK packaging or automatically by packaging machines (single-hole or complete perforation).

Complete perforation (available in all markets)

Perforation is applied automatically by a packaging machine over the entire bundle length. Foil ends are not sealed, and it's completely cut from the tab end to the closed end to allow easy opening.

Single-hole perforation (available in Asia)

Bundles are delivered in single-hole perforated foils sealed on both ends. The customer's operator uses a special knife to cut the foil and open bundles.



The casing length in the strand allows for a maximum efficiency of your stuffing equipment, without productivity loss due to multiple stops of the machine.

Shirred strands are available in many lengths and are perfectly matched with the different hopper sizes of

the stuffing machines. The optimal combination of the

At ViskoTeepak, we have developed a shirring technology that's unique in the cellulose industry. This allows us to achieve the optimal combination of final shirred strand parameters. The meters per strand, strand length and horn diameter are parameters that directly affect your production efficiency. Maximizing the hornfit will allow for a maximum speed of the meat through the stuffing tube, without creating a smearing effect or destroying the look of your sausages.

optimize efficiency.

The best way to

Overseas pallets

Standard wooden or plastic black pallets for safety and hygiene. The dimensions are 1,070 x 1,070 mm.

EZPak (available in the Americas)

pallets or overseas pallets.

The EZPAK style packaging has sealed ends, frequently perforated foil for easier opening and taped over the entire length of the bundle, thus allowing easier reuse of packaging for the remaining strands.

Wienie-Pak cartons can be delivered on various types of pallets, depending on the customer's demands and priorities. They can also be delivered on EU-standard

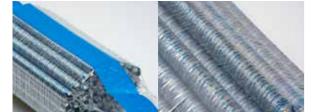
Standard wooden pallets or plastic black/blue pallets for safety and hygiene. The dimensions are 1,200 x 800

Pallets

EU pallets

mm.









The right casing for any application.

Wienie-Pak is a big volume product, but it is not a standard solution. Wienie-Pak is always tailored to fit each customer's process and application requirements. After making the choice between Rapid Peel and Printed casings, the casing can be tailored in multiple combinations both for increased efficiency and added appeal. History has proven that we have something to offer all types of cellulose casing customers and we will support you in developing the most optimal solution for you.

Technical sales service support

ViskoTeepak has always been known as a customer-oriented company and we have made customer service a top priority. In order to further develop this aspect of our service and to serve our customers even better, we have established a TSS group with expertise in casing technology, customizing and sausage-making. The Technical Sales Support Team will be responsible for creating new business solutions for a value-driven environment and to support the customer in improving his business and provide solutions to problems. The team members have many years' experience, both theoretical and practical, from casing manufacturing and customizing to the development and processing of sausages and meat products.

Maximizing your business

Our TSS group will help you tailor the optimal solution for your process. They will try to maximize the benefits of casing usage. That means marrying the right products with the right application. In partnership with the customer, our TSS group will optimize the customer process parameters and troubleshoot the operation of casing and sausage production. We will help you in efficient cost control, new product development and in educating your personnel on the casing industry and meat technology.

Want to give it a test?

A Wienie-Pak request form will be filled in with all the details given by you to the Sales Manager. This request will then be given a test number and a trial sample will be manufactured based on the information received from you. The delivery times for trial samples have to be agreed upon with ViskoTeepak marketing personnel on a case-by-case basis. We recommend that customizing is done by the same customizer used in the normal operations of the business.

New product development

When the development of a new product is finished, the first testing batch will be produced and sent to the customer for initial testing. Based on customer feedback, the development of a new product will continue or material for a confirmation test will be prepared and sent to the customer for testing.

General rules and principles

The principle is that we work in a confidential, proprietary relationship with each customer. The information provided by our Technical Sales Support function is based on our own research and development work and is, to the best of our knowledge, reliable. Users should, however, conduct their own tests to determine the suitability of our products, recipes, etc., for their particular purposes. All information is given in good faith but should not be considered as a warranty of any kind, whether expressed or implied.

Always tailored to each customers process

Customer name:			
Customer location (town, country):			
Partner name/country:			
Potential delivery quantity (MM/year):			
Competitor (name):			
Competitor product (specify):			
Price level (€/KM):			
Requested date			
Final product description			
Stuffing diameter of sausage (mm):			
Stuffing length of sausage (mm):			
Weight of one sausage (g):			
Casing peeled off after processing	Yes:	No:	
Form of packaging			
No packaging:	Yes:	No:	
Vacuum packaging:	Yes:	No:	
MAP packaging:	Yes:	No:	
Can packaging:	Yes:	No:	
Glass packaging:	Yes:	No:	
Other packaging:			
Strand description			
Casing caliber:	US size:	EU size:	
Casing color:			
Stripes:	Yes:	No:	
Color: Numbers: _			
Casing length in strand (ft):S	trand length (mm):_		
Inside diameter of strand (mm):			
Rapid Peel or Smash coating (RP/SMH)	:		
Casing to be printed:	Yes:	No:	
Print description			
One or two side printing:	One side:	Both sides:	:
Color of first side print (Pantone numbe	er):		
Color of second side print (Pantone nu	mber):		
Design of print (attach to the form, plea	ase):		
Other remarks:			

Meat emulsion

MDM: Chicken: Pork:		Beef:	
Mix (specify):			
Emulsion viscosity (low/medium/high):			
Other remarks:			
Stuffing machine			
Townsend (specify model):			
Handtmann (specify model):			
Vemag (specify model):			
HiTech (specify model):			
Hopper length (mm): Stuffing tube s	size (mm): <u>.</u>		
Other remarks:			
Stuffing conditions			
Stuffing speed (RPM, Production rate):			
Number of twists:			
Other remarks:			
Processing conditions			
Smoke chamber used (specify type):			
Continuous process line used (specify type):			
Liquid smoke used (specify type):			
Dry smoke used:	Yes:		No:
Other remarks:			
Peeling conditions			
Peeler (specify type):			
Peeling is performed immediately after processing	g: Yes: [No:
Peeling performed on the second day:	Yes:		No:
Storage temperature (deg. C):			
Other remarks:			
Form filled in by:			
Name:			
Company:			
Date:			

Product information.

In the following tables you can find everything from machine settings, casing properties, packaging information and more. If you can't find what you are looking for please contact ViskoTeepak sales team to learn more.

Bundles and meters per bulk

	Casing	size		Casing length in ft. (m)												
Nom.	EU	US	RSD* mm	33 (10.1)	70 (21.3)	84 (25.6)	95 (29.0)	110 (33.5)	125 (38.1)	140 (42.7)	160 (48.8)	200 (61.0)	230 (70.1)			
13	1300	13	14.0													
14	1400	14	15.2				98/ 141884									
14	1450	15	15.8			98/ 125440	98/ 141884		106/ 201930							
15	1550	16	16.2				98/ 141884			90/ 192060						
16	1600	17	16.8					80/ 134112	80/ 152400	80/ 170720						
16	1650	18	17.5					78/ 130759								
17	1700	19	18.3			78/ 99840	78/ 112944	78/ 131759	78/ 148590	78/ 166452	78/ 190164					
18	1750	20	18.9					72/ 120701	72/ 137160	72/ 153619	62/ 151181	56/ 170688				
19	1850	21	19.5			72/ 92160	72/ 104242	72/ 120701	72/ 137160	72/ 153619	64/ 156058	56/ 95585				
20	1950	22	20.0				60/ 86880	60/ 100584	60/ 114300							
21	2050	23	21.0		90/ 96012	60/ 76800	60/ 86880	60/ 100584								
22	2150	24	22.0		56/ 59920	56/ 71689	56/ 81088	56/ 94080								
23	2250	25	23.0			50/ 64008	50/ 72390	50/ 83820			50/ 121920					
24	2350	26	24.0		75/ 80010		50/ 72390						66/ 129552			
25	2450	27	25.0		75/ 80010	50/ 64008	50/ 72390									
26	2550	28	26.0			40/ 51200		40/ 67200								
28	2750	30	28.0		60/ 64008		40/ 57912	40/ 67200								
30	2950	32	29.5		90/ 53766											
32	3150	34	31.5	100/ 28164	75/ 44925	50/ 35800		56/ 52572								
34	3350	36	33.5													
38	3750	40	37.0													

*RSD = Recommended stuffing diameter. xx / xxxxx = Number of bundles in a bulk / number of meters in a bulk Red cells = 28 strands per bundle. Clear cells = 50 strands per bundle

Recommended stuffing machine settings

C	asing size	è				Marel-Townsend		Other
Norm		US	RSD* (mm)	Но	orn	Chuck number	Linking	metric horr
Nom.	EU	05		mm	"/32	"/32	chain	(mm)
13	1300	13	14.0	7.9	10	13, 14	С	8
14	1400	14	15.2	8.7	11	14, 15	С	8
	1450	15	15.8	8.7	11	14, 15	С	9
15	1550	16	16.2	9.5	12	15	С	9
16	1600	17	16.8	9.5	12	15, 16	С	9
	1650	18	17.5	10.3	13	16, 17, 18	С	10
17	1700	19	18.3	10.3	13	17, 18, 19	C–S	10
18	1750	20	18.9	11.1	14	18, 19	C–S	11
19	1850	21	19.5	11.1	14	19, 20	C–S	11
20	1950	22	20.0	11.9	15	20, 21	S	11
21	2050	23	21.0	11.9	15	20, 21, 22	S	12
22	2150	24	22.0	12.7	16	21, 22	S-L	12
23	2250	25	23.0	12.7	16	22, 23	S-L	12
24	2350	26	24.0	13.5	17	23, 24	S-L	13
25	2450	27	25.0	13.5	17	24, 25	S–L	13
26	2550	28	26.0	15.9	20	25, 26	L	16
27	2650	29	27.0	15.9	20	26, 27	L	16
28	2750	30	28.0	16.7	21	27, 28	L	17
30	2950	32	29.5	16.7	21	29	L	17
32	3150	34	31.5	17.5	22	29	L	18
34	3350	36	33.5	18.3	23	32	L	19
38	3750	40	37.0	19	24	34	L	19

Tailor-made products are available. *RSD = Recommended stuffing diameter.

Casing properties

Ca	sing siz	e	RSD* (mm)	Con-	Solid color	Stripe	Number	Printed	Definition
Nom.	EU	US		struction	30110 00101	color	of stripes	Finited	Deminion
13	1300	13	14.0	0	C, SL, BI	W, Bk	3, 4	No	
14	1400	14	15.2	0, W	C, SL, BI	W, BI	3, 4	No	Solid Colors
	1450	15	15.8	0, G, W	C, SL, BI	W, Bk, Bl, R	3, 4	No	C= Clear
15	1550	16	16.2	0, G, W	C, SL, BI	W, Bk, Bl, R	3, 4	No	SL= Smoke
16	1600	17	16.8	0, G, W	C, SL, BI	W, Bk, Bl, R	3, 4	No	Light
	1650	18	17.5	0, G, W	C, SL, BI	W, Bk, Bl, R	3, 4	Yes	SM= Smoke
17	1700	19	18.3	0, G, W	C, SL, BI	W, Bk, Bl, R	3, 4	Yes	Medium SD = Smoke
18	1750	20	18.9	0, G, W	C, SL, BI	W, Bk, Bl, R	3, 4	Yes	Dark
19	1850	21	19.5	0, G, W	C, SL, SM, SD, BI	W, Bk, Bl, R	3, 4	Yes	BL= Blue
20	1950	22	20.0	0, G, W	C, SL, SM, SD, BI	W, Bk, Bl, R	3, 4	Yes	
21	2050	23	21.0	0, W	C, SL, SM, SD, BI	W, Bk, Bl, R	3, 4	Yes	Stipe Colors W = White
22	2150	24	22.0	0, G, J, W	C, SL, SM, SD, BI	W, Bk, Bl, R	3, 4	Yes	Bk=Black
23	2250	25	23.0	0, J, W, G	C, SL, SM, SD, BI	W, Bk, Bl, R	3, 4, 6	Yes	BI= Blue
24	2350	26	24.0	0, J, G, W	C, SL, SM, SD, BI	W, Bk, Bl, R	3, 4	Yes	R= Red
25	2450	27	25.0	0, W	C, SL, SM, SD, BI	W, Bk, Bl, R	3, 4	Yes	
26	2550	28	26.0	0, J, W	C, SL, SM, SD, BI	W, Bk, Bl, R	3, 4	Yes	Construction 0 = Standard
27	2650	29	27.0	0, W	C, SL, SM, SD, BI	W, Bk, Bl, R	3, 4	Yes	G = Stiff
28	2750	30	28.0	0, J, W	C, SL, SM, SD, BI	W, Bk, Bl, R	3, 4	Yes	W = Flexible
30	2950	32	29.5	0	C, SL, SM, SD, BI	W, BI, R	3, 4, 6	Yes	J = Super
32	3150	34	31.5	0	C, SL, SM, SD, BI	W, BI, R	3, 4, 6	Yes	Stiff/Less
34	3350	36	33.5	0, W	C, SL	BI, R	3, 4	Yes	Strong
38	3750	40	37.0	0	C, SL	BI	3, 4	No	

Bundles per carton

	Casin	g size		Strands/ bundle	Casing length in ft (m)								
Nom.	EU	US	RSD* mm	pcs	55 (16.8)	70 (21.3)	84 (25.6)	95 (29.0)	110 (33.5)	125 (38.1)	140 (42.7)	160 (48.8)	
13	1300	13	14.0		8	8	6						
14	1400	14	15.2		8	8	6	6	6	6			
14	1450	15	15.8		8	8	6	6	6	4			
15	1550	16	16.2		8	8	6	6	4	4	4		
16	1600	17	16.8		8	8	6	6	4	4	4		
16	1650	18	17.5		8	8	6	6	4	4	4	2	
17	1700	19	18.3		8	8	6	6	4	4	4	2	
18	1750	20	18.9	F.0	8	8	6	6	4	4	4	2	
19	1850	21	19.5	50	8	8	6	6	4	4	4	2	
20	1950	22	20.0		8	8	6	6	4	4	4	2	
21	2050	23	21.0		6	6	4	4	4	4	4	2	
22	2150	24	22.0		6	6	4	4	4	4	2	2	
23	2250	25	23.0		6	6	4	4	4	4	2	2	
24	2350	26	24.0		6	6	4	4	4	2	2	4	
25	2450	27	25.0		6	6	4	4	4	2			
26	2550	28	26.0		6	6	4	4	4	2	2		
27	2650	29	27.0	-	6	6	4	4	4	4			
28	2750	30	28.0		6	6	4	4	4	4			
30	2950	32	29.5		6	6	4	4	4				
32	3150	34	31.5	20	6	6	4						
34	3350	36	33.5	28	6	6	4						
36	3550	38	35.5		6	6	4						
38	3750	40	37.0		6	6							

*RSD = Recommended stuffing diameter.

Strands per bundle

(Casing siz	e		Casing length in ft. (m)									
Nom.	EU size	US size	RSD* (mm)	55 16.8	70 21.3	84 25.6	95 29.0	110 33.5	125 38.1	140 42.7	160 48.8		
13	1300	13	14.0	50	50	50							
14	1400	14	15.2	50	50	50	50	50	50				
14	1450	15	15.8	50	50	50	50	50	50				
15	1550	16	16.2	50	50	50	50	50	50	50			
16	1600	17	16.8	50	50	50	50	50	50	50			
16	1650	18	17.5	50	50	50	50	50	50	50	50		
17	1700	19	18.3	50	50	50	50	50	50	50	50		
18	1750	20	18.9	50	50	50	50	50	50	50	50		
19	1850	21	19.5	50	50	50	50	50	50	50	50		
20	1950	22	20.0	50	50	50	50	50	50	50	50		
21	2050	23	21.0	50	50	50	50	50	50	50	50		
22	2150	24	22.0	50	50	50	50	50	50	50	50		
23	2250	25	23.0	50	50	50	50	50	50	50	50		
24	2350	26	24.0	50	50	50	50	50	50	50	28		
25	2450	27	25.0	50	50	50	50	50	50				
26	2550	28	26.0	50	50	50	50	50	50	50			
27	2650	29	27.0	50	50	50	50	50					
28	2750	30	28.0	28	28	28	28	28	28				
30	2950	32	29.5	28	28	28	28	28					
32	3150	34	31.5	28	28	28		28					
34	3350	36	33.5	28	28	28							
36	3550	38	35.5	28	28	28							
38	3750	40	37.0	28	28								

Hornfit in mm

(Casing size	e		Casing lenght ft. (m)									
Nom.	EU	US	RSD* (mm)	55 16.8	70 21.3	84 25.6	95 29.0	110 33.5	125 38.1	140 42.7	160 48.8		
13	1300	13	14	8	8	8							
14	1400	14	15.2	8.7	8.7	8.7	8.7	8.7	7.8				
14	1450	15	15.8	9	9	9	9	9	8.7				
15	1550	16	16.2	9.5	9.5	9.5	9.5	9.5	9.5	8.7			
16	1600	17	16.8	9.5	9.5	9.5	9.5	9.5	9.5	9.5			
16	1650	18	17.5	10.3	10.3	10.3	10.3	10.3	10.3	9.5	9.5		
17	1700	19	18.3	10.5	10.5	10.5	10.5	10.5	10.5	10.5	9.5		
18	1750	20	18.9	11.1	11.1	11.1	11.1	11.1	10.3	10.3	10.3		
19	1850	21	19.5	11.1	11.1	11.1	11.1	11.1	11.1	11	11		
20	1950	22	20	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9		
21	2050	23	21	11.9	11	11.9	11.9	11.9	11.9	11.9	11.1		
22	2150	24	22	12.7	12.7	12.7	12.7	12.7	12.7	11.9	11.1		
23	2250	25	23	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7		
24	2350	26	24	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5		
25	2450	27	25	13.5	13.5	13.5	13.5	13.5	13.5				
26	2550	28	26	16	16	16	16	16	16	16			
27	2650	29	27	16	16	16	16	16					
28	2750	30	28	17	17	17	17	17	17				
30	2950	32	29.5	17	17	17	17	17					
32	3150	34	31.5	18	18	18					-		
34	3350	36	33.5	19	19	19							
36	3550	38	35.5	19	19	19							
38	3750	40	37	19	19								

Other hornfits and lengths are available on request.

Meters per case

Casing size			ft (m)								
Nom.	EU size	US size	RSD* (mm)	55 16.8	70 21.3	84 25.6	95 29.0	110 33.5	125 38.1	140 42.7	160 48.8
13	1300	13	14.0	6 720	8 540	7 680					
14	1400	14	15.2	6 720	8 540	7 680	8 690	10 080	11 430		
14	1450	15	15.8	6 720	8 540	7 680	8 690	10 080	7 620		
15	1550	16	16.2	6 720	8 540	7 680	8 690	6 720	7 620	8 534	
16	1600	17	16.8	6 720	8 540	7 680	8 690	6 720	7 620	8 534	
16	1650	18	17.5	6 720	8 540	7 680	8 690	6 720	7 620	8 534	4 87
17	1700	19	18.3	6 720	8 540	7 680	8 690	6 720	7 620	8 534	4 87
18	1750	20	18.9	6 720	8 540	7 680	8 690	6 720	7 620	8 534	4 87
19	1850	21	19.5	6 720	8 540	7 680	8 690	6 720	7 620	8 534	4 87
20	1950	22	20.0	6 720	8 540	7 680	8 690	6 720	7 620	8 534	4 87
21	2050	23	21.0	5 040	6 405	5 120	5 792	7 620	7 620	8 534	4 87
22	2150	24	22.0	5 040	6 405	5 120	5 792	7 620	7 620	4 267	4 87
23	2250	25	23.0	5 040	6 405	5 120	5 792	7 620	7 620	4 267	4 87
24	2350	26	24.0	5 040	6 405	5 120	5 792	6 720	3 810	4 267	5 46
25	2450	27	25.0	5 040	6 405	5 120	5 792	6 720	3 810		
26	2550	28	26.0	5 040	6 405	5 120	5 792	6 720	3 810	4 267	
27	2650	29	27.0	5 040	6 405	5 120	5 792	6 720			
28	2750	30	28.0	2 820	3 587	2 867	3 244	3 763	4 267		
30	2950	32	29.5	2 820	3 587	2 867	3 244	3 763			
32	3150	34	31.5	2 820	3 587	2 867					
34	3350	36	33.5	2 820	3 587	2 867					
36	3550	38	35.5	2 820	3 587	2 867					
38	3750	40	37.0	2 820	3 587						

Strand length

Casing size			Casing length in ft. (m)								
Nom.	EU	US	RSD* (mm)	55 16.8	70 21.3	84 25.6	95 29.0	110 33.5	125 38.1	140 42.7	160 48.8
13	1300	13	14.0	215	280	310					
14	1400	14	15.2	215	310	310	360	420	420		
16	1450	15	15.8	215	280	310	360	420	420		
15	1550	16	16.2	215	280	310	360	420	420	420	
16	1600	17	16.8	215	280	310	360	420	420	420	
16	1650	18	17.5	215	280	310	360	420	420	420	510
17	1700	19	18.3	215	280	310	360	420	420	420	510
18	1750	20	18.9	215	280	310	360	420	420	420	510
19	1850	21	19.5	215	280	310	360	420	420	420	510
20	1950	22	20.0	215	280	310	360	420	420	420	510
21	2050	23	21.0	215	280	310	360	420	420	420	510
22	2150	24	22.0	215	280	310	360	420	420	420	510
23	2250	25	23.0	215	280	310	360	420	420	420	510
24	2350	26	24.0	215	280	310	360	420	420	420	510
25	2450	27	25.0	215	280	310	375	420	420	420	
26	2550	28	26.0	215	280	310	375	420	420	420	
27	2650	29	27.0	215	280	310	375	420	420		
28	2750	30	28.0	215	280	345	375	420	420		
30	2950	32	29.5	215	280	345	375	420			
32	3150	34	31.5	215	280	345					
34	3350	36	33.5	215	280	345					
36	3550	38	35.5	215	280	345					
38	3750	40	37.0	215	280						

Other strand and casing lengths are available upon request.

Maximum strand length for stuffing machines*

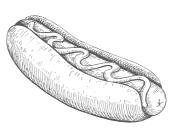
Hopper Length	Standard (mm)	With Recess (mm)
Marel-Townsend NL14	356	
Marel-Townsend NL17	432	
Marel-Townsend NL21	533	
Marel-Townsend iLinker	483	
Marel-Townsend LK440	432	
Marel-Townsend LK450	483	
Handtmann PVLH 240	425	
HandtMann PVLH 241	425	
HandtMann FPVLH 242	580	410
Handtmann PVLH 246	476**	275
Vegman LPG 208	350	371
Vegman LPG 209	420	350
Vegman LPG 213	580	480 / 380
Vegman LPG 218	580	420
Hitec Linkwel X M10	325	
Hitec M-3X	419	
Hitec Linkwel XL M20	440	
Hitec M-3 XL	546	

* Always count 20 mm for strand easy loading in the hopper ** max strand length is 410 mm !!!



ViskoTeepak / Wienie-Pak – 43





Fibrous Family

We're the world's leading manufacturer of fibrous casings, in terms of volume as well as variety. We offer the widest range of diameters, from the smallest to the largest casing diameter. Fibrous casings are used for a wide range of applications, such as pepperoni, salami, and lunch meats.

- Fibrous Standard (ST)
- Fibrous MAX
- Fibrous Super Protect
- Fibrous Glide
- Fibrous Xtreme
- Fibrous XL/LCXL
- **Fibrous Brilliant**
- Fibrous FLX
- Fibrous CRF
- Fibrous Preserve

Our cellulose product line is called Wienie-Pak. We're one of the big players in the cellulose-casing market as well. We offer our customers the most efficient cellulose casing available. Wienie-Pak is used for a wide range of applications, such as frankfurters, hot dogs, beer sausages, and mini-salamis.

Wienie-Pak Rapid Peel

Cellulose Family

- Wienie-Pak Colored Casing
- Wienie-Pak Window
- Wienie-Pak D-Tech
- Wienie-Pak Printed
- Wienie-Pak Logoprint
- Wienie-Pak Multicolor Printed
- Wienie-Pak TC (Transfer Color)
- Wienie-Pak Long-Shirred



Plastic Family

Our plastic product line is called Nova. The Nova casing is a combination of different types of high-performance plastic resins, which work together to provide a unique level of performance. Nova is used for a wide range of applications such as cooked hams, liver sausages, and pâtés.

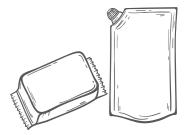
- Core Series
- Shape Series
- Industrial Series
- True Series

We supply collagen casings from the world's top producers. We offer both edible and non-edible collagen for the US and German markets. Collagen is a strong and flexible casing that is used for a wide range of applications such as cooking, dry, and fresh sausages.

- Nippi edible (USA)
- Nippi non-edible (USA)
- Fibran non-edible (USA)







Collagen Family

Devro edible (Germany)

Devro non-edible (Germany)

Packaging Family

We're a full-line food packaging supplier to the meat and poultry processing industry. Our packaging materials and brands are today offered mainly in Germany, Canada, Mexico, the Nordics, and the U.S. Our packaging materials are used for a wide range of products such as pouches, shrink bags, and films.

TNI Elastic Food Loops **Evolv Shrink Bags** Ally Films Vivid Pouches Vista Gel

ViskoTeepak / Wienie-Pak – 45

Principles and guiding values.

ViskoTeepak is committed to conduct its business with honesty and integrity, to follow the law and to make sure that each employee and business partner is treated respectfully. We have the highest level of certification in the casing industry and act responsible when it comes to quality, health, safety and the environment.



Code of Conduct The full text of our Code of Conduct is available in English on our website: www.viskoteepak.com



Sustainability Report The full text of our Sustainability Report is available on our website: www.viskoteepak.com

Certificates	Lommel	Hanko	Delfzijl	Brno	Nuevo Laredo	Kenosha	Poznan
GFSI recognized food safety certification	*	*	*	*	*	*	*
Quality: ISO 9001	*	*	*	*	*		
Environment: ISO 14001	*	*			*		
OHS: ISO 45001	*	*					
Kosher	*	*	*	*	*	*	*
Halal	*	*	*	*	*	★**	*
EU Food Contact Compliance: (EC) No. 1935/2004	*	*	*	*	*		*
U.S. Food Contact Compliance: C.F.R. 21 FDA 170-199*	*	*	*	*	*	*	
U.S. FDA Food Facility Registration	*	*	*	*		*	
Customs and trade: AEO status	*	*	*				

*Applicable parts

**For alginate casing



Learn more at:



in linkedin.com/company/viskoTeepak



Contact information for your local sales representative can be found at www.viskoteepak.com

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