



GELITA

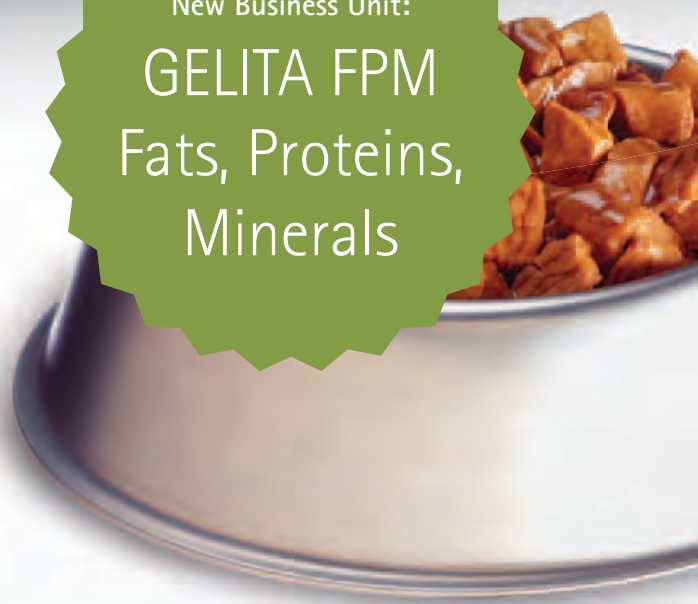
UPTO DATE

The Newsletter for GELITA Customers

#29

New Business Unit:

GELITA FPM
Fats, Proteins,
Minerals



Dear Readers,

The end of the year is always a good point to reflect on what has been achieved during the past twelve months and to plan for the coming year. We at GELITA are satisfied with how we have completed the year 2011 – however, it is always our goal to improve and to find new applications for our products in the interests of our customers. This is part of our company credo. One important building block on the route to achieving this is the new Business Unit FPM Ingredients (fats, proteins, minerals).

2011 is also the year in which the global population has increased to now 7 billion. Current studies show us that the requirement for protein in the world will double by the year 2050. We at GELITA wish to help solve this problem with our high quality collagen proteins. The economic and efficient utilization of resources play a more important role than ever before against this background. From fertilizers to animal feed to industrial separation media, FPM Ingredients is able to deal with resources in a very gentle and protective way. There are practically no limits to the utilization of these products in further applications.

Efficiency is one of the major criteria when dealing with our products, whether as a supplier of protein in the form of PEPTIPLUS® – which improves the power yield made available to athletes – convenient and versatile food service applications or with GELITA-SPON® Rapid³ in operating theaters, where speed is always an economic factor. These are only some of the topics that will be dealt with in this edition of uptodate.

We wish you much enjoyment when reading this and also of course every best wish for a successful conclusion to the year 2011 and an equally good start to 2012 !

Michael Teppner

Global Vice President Marketing & Communication
GELITA AG



Lars Andersson, Global Vice President
FPM Ingredients, GELITA AG

GELITA Diversity
Increased enjoyment
and added value



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New manager:

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Heinrich Schmidt

Global Vice President Procurement



GELITA MEDICAL
Gelatine simplifies
operations



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GELITA – worldwide

Sweden



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Title story

FPM Ingredients

Ingredients with substantial
added value

PEPTIPLUS®

Healthy protein power

Performance enhancers for body and soul: PEPTIPLUS®, a concentrated source of protein, is already being used in a variety of functional sports bars and beverages. It improves the power yield available to athletes and helps to reduce sugar intake. PEPTIPLUS®, when used in cereal bars, holds the ingredients together – and the team.

GELITA® Collagen Proteins incorporate all the positive properties required for high performance. This is energy pure – wherever PEPTIPLUS® is used, natural protein power increases. Mixed into functional foods, it provides the natural nutrients required by muscles and cells. Due to its bio-availability, PEPTIPLUS® is easily absorbed by the body for subsequent use. The result is tauter connective tissue, which increases attractiveness.

Thus, consumers of sports beverages and power bars, in addition to the enjoyment factor, keep in good shape. How is it possible to achieve maximum performance with GELITA® Collagen Proteins when formulating

recipes? PEPTIPLUS® can be added to any protein or sports beverage or mixed with other components because it is readily soluble in cold water. The proteins bind easily with the liquid, becoming stable and firm. Mouthful for mouthful, they are smooth in taste; beverages enriched with PEPTIPLUS® proteins flow easily and smoothly, enabling the full aroma to develop.

Power is developed while the taste remains to be enjoyed, even in solid form. PEPTIPLUS®, when contained in energy bars, develops first-class sensory properties; they have a forming effect and are smooth and firm at the same time. They are ideal for producing rapid performance kicks when required.

As athletes tend to adhere to a healthy diet, they would prefer to do so without the least valuable form of energy – crystallized sugar. This is not a problem with PEPTIPLUS®!

In snack bars, the proportion of carbohydrate can be substantially reduced or even eliminated. Instead, during manufacture, the proportion of fibrous cereal can be increased. The GELITA® Collagen Peptides act as "adhesives" that bind even the coarsest of cereals, they smoothen surfaces and, even in low concentrations, bind dry materials. In this way, the purine-free ingredient is a boon to every recipe – from beverages to energy bars.

Ingredients for the world of tomorrow

As of October 31, 2011, the world population is officially 7 billion. This is an almost unbelievable number and it continues to grow, rendering nutrition and the provision of important resources a real global challenge. However, it also provides numerous other application possibilities with significant added value for the customer.

Phosphate is indispensable in agriculture. Most of the world's production of phosphate goes into fertilizers. However, resources are limited. Experts assume that the natural resources available for the production of fertilizers will be exhausted before those of oil. Thus, in view of the enormous population growth in many parts of the earth, alternatives will have to be found. Animal materials, gained by GELITA in the course of collagen protein manufacture, represent an ideal source of phosphate for fertilizers. These are even

more valuable because, unlike naturally occurring phosphates that are often contaminated with heavy metals, these can be produced in extremely pure form.

Protecting natural resources

FPM Ingredients also contributes to solving the overall problem of nutrition of the increasing world population and to protecting natural resources. The high-quality proteins produced by GELITA could well very soon also be used in aquaculture, a science that is gaining in importance due to the problems caused by overfishing. This could conceivably reduce the pressure now being placed on the decimated fish population. In the area of pet foods, increasing turnover is being achieved today. One of the reasons is that, due to worldwide demographic change, the number of elderly persons is increasing – and they often acquire pets for company. Those senior citizens who live alone are particularly prone to this trend and often pamper their pets with high-quality, protein-rich food. The fats produced by GELITA are now being increasingly used for the production

Nutrient for the soil:
Phosphates produced by
FPM Ingredients are important
components of phosphate
fertilizers so indispensable
to high-performance
agriculture worldwide.





Powerful: FPM Ingredients supplies fats, proteins and minerals that can convert traditional animal feed into high-quality power fodder.



Refuel in a sustainable way: GELITA fats are suitable for use in the production of bio-fuels that will make us more independent from fossil fuels.



Breeding instead of overfishing: GELITA® Proteins could well soon be used as food in aquacultures.

of bio-fuels. In this way, they represent an alternative to the gradually dwindling sources of oil reserves throughout the world.

Wide range of applications

Industry requires the fats, proteins and minerals produced by GELITA for the manufacture and further processing of a variety of products. The main areas of application for the products produced by FPM Ingredients are human food, pet food and animal feed. The fats for example serve as providers of energy. Proteins can improve the texture and hence the enjoyability and digestibility of foodstuffs and animal feed. Further applications are in technical areas: ingredients from GELITA are used e.g. in the manufacture of bone china, construction molds, lubricants for machines and anti-rust agents.

Tailor-made quality

The fats, proteins and minerals produced by GELITA are characterized by a higher

quality than those of competitors. The raw materials used by FPM Ingredients, subsequent to gelatine and collagen production, are chopped, dissolved, purified and filtered in complex processes. They are therefore available in a highly pure form – depending on requirement up to the highest purity standard necessary for foodstuffs. GELITA customizes the ingredients in terms of composition, form, economics and quality individually with its customers according to the requirements of the end product and production process.

Including service

GELITA also provides for FPM Ingredients the same comprehensive and valued service for its customers throughout the world as it does for its gelatine and collagen products. This includes reliable just-in-time delivery, comprehensive support during product development, in regulatory affairs and subsequent marketing. This full service with respect to the total added value chain is intended to support GELITA customers in opening up new markets and giving them a competitive edge.

To enable FPM Ingredients to find new, future-oriented fields of application, GELITA is currently working on expanding the product portfolio for ultimate use in its current and envisaged markets. New brands are also being prepared; this will send strong signals to the market that FPM Ingredients is marketing high-quality and advanced products originating from GELITA.

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"The huge potential of FPM

Lars Andersson, Head of the newly created Business Unit FPM Ingredients, explains why he does not feel sorry at all for saying "bye-bye" to by-products and how GELITA can help to solve global problems such as dwindling resources and rising pollution.

■ Mr. Andersson, fats, proteins and minerals – FPM for short – are generated during the production of gelatine. What is so special about these secondary products?

First of all: They are definitely not secondary. Just let me remind you that, with respect to volume, we produce twice the amount of fats, proteins and minerals compared to gelatine. FPM ingredients are full-bodied products that create added value for our customers.

What exactly do you mean by added value and where are these products being used?

The food and pet food markets demand high-quality products. In food applications, our proteins enhance texture; for example, they are already ingredients in hamburgers. In pet food, the high protein content together with excellent digestibility add value to the products. Fat is the most efficient energy contributor in food and animal feed, as well as a very interesting clean fuel.

"These ingredients are hidden champions."

In biodiesel e.g., it is one of the best ways to generate a low-carbon footprint. In oleo-chemistry, our fats are split into fatty acids used in, for example, candles or as ingredients in plastics. As a source of phosphorous, our DCP (dicalcium phosphate) is an important ingredient in animal feed and fertilizers. Possible new technical applications could well be in the fields of anti-corrosion and mold protection.

These ingredients are hidden champions; the potential in each of them is overwhelming. For example, the scarcity of proteins and phosphorous forecasted is a real challenge and will put a new perspective on these products.

Why is GELITA now placing more attention on the marketing of these products?

We know FPM ingredients can add value to our customers' products. And the growing population coupled with dwindling worldwide resources now shed new light on what formerly used to be merely seen as by-products.

What changes became necessary as a result of the creation of the new Business Unit?

We are right now in the process of reorganizing the Business Unit. We are focusing on product development and building up partnerships with our customers. And, with Dr. Dieter Schulz, we have a very competent Product Manager to establish these channels. Besides, we are now steering FPM globally.

Which markets have the biggest potential?

Proteins have definitely the biggest potential. We see huge opportunities in the food market; however, a lot of work still has to be done, e.g. obtaining food grade approvals.

GELITA produces gelatine customized to individual requirements. What about FPM Ingredients?

We can customize these products too. For example, we add antioxidants, adjust pH and select qualities to meet customer requirements. We also apply stringent controls in fulfilling customer specifications. There will be even more customization in future with different milling grades on offer.

What kind of added value does GELITA offer their clients on top?

We are very much committed to our customers, and that is not just a figure of speech. With just-in-time deliveries and partnerships in product development as well as full quality transparency we add value as a reliable partner. And, last but not least, we have excellent staff to achieve this!

Why is being the Head of FPM Ingredients a really fascinating job?

The sudden "exploded" understanding of the importance and value of our products.

"FPM ingredients are customized to fulfill individual requirements."

Also the great support and feedback from everybody in making this all happen. The huge potential is fascinating! We always need to be ahead of the competition and this is just the way to do it.

Ingredients is fascinating."

"We create
added value for
our customers."

Lars Andersson,
Sweden, GELITA AG

Beautiful!

GELITA® Photo-Gelatines in focus

Some 8.3 million digital cameras were sold in Germany in 2010. However, this does not necessarily mean that analog photography is no longer in use: on the contrary, it is experiencing a revival, as reported by Dr. Jörg Siegel, Managing Director of InovisCoat. His company is based on the production of film materials, including photo-gelatines from GELITA.

“Photography in a way is very similar to what is now happening in the area of multimedia. Here, the CD initially replaced records but now the vinyl discs are coming back to favor. It's the same with analog and digital photography”, says Dr. Siegel, who spent many years with film producer AGFA. InovisCoat was founded in 2005 with the intention of utilizing AGFA's coating technology to develop and produce innovative photographic products. These included well-known products such as black-and-white films and paper and color-negative paper but also the less well-



known instant photos for Polaroid cameras (“The Impossible Project”) and innovative coating solutions for films, medical technology and safety products. “These of course are not mass-produced items but rather niche products for special areas such as instant photos”, he emphasizes. This market is of little interest for large companies so that production facilities for certain film types continues to be closed down. However, for InovisCoat, the market is indeed of interest. They employ 25 people and small

production lots are just right. “Small”, however, can mean up to one million square meters a year.

No photo without gelatine

Regardless of how much movement is in the market, one aspect has not changed and, according to Dr. Siegel, will not change: no photo material is possible without gelatine. And, in the case of InovisCoat: not without GELITA® Photo-Gelatine. “Right from the beginning we worked with gelatine from GELITA and were always quite happy”, says Dr. Siegel. Thanks to the technical know-how provided by GELITA our stringent quality characteristics have always been adhered to when we change batches.

But why is gelatine necessary at all for the manufacture of films and photographic paper? “It is necessary to have a matrix that binds the light-sensitive halogen iodide crystals.” The decisive factor in developing films is the ability of gelatine to swell but then to dry. The fixed and dried gelatine on the carrier of the film being a hydrocolloid, it absorbs the developing fluid so that the photo pigments can form. Once the developing process has been completed, the paper is dried again. Gelatine is added during the formation of the silver halide crystals. Gelatine stabilizes these and influences crystal growth and form. In this way the light sensitivity e.g. can be increased: flat crystals of the same volume are more sensitive than cubic ones as their surface is greater. And, the larger the crystals, the more light-sensitive they are. “This inter-

active effect between crystals and gelatine is unique and cannot be replaced”, says Dr. Siegel. And as this type of interaction can be transferred to other applications, important aspects of this photographic know-how are being used for the development of other innovative technologies with gelatine.

Reliable material

The question of course remains: just how does the photographic emulsion, the gelatine solution and the silver halide crystals get onto the film? InovisCoat utilizes a high-tech casting technique called “multicoating”, a process that allows all the layers to be applied to the film in one step. In this process, the viscosity of the gelatine is a critical factor: if the gelatine has a specific predetermined viscosity, the layers will not mix. “Some artists apply the layers by hand in order to achieve specific effects; these, however, are not reproducible”, according to Dr. Siegel. For film material, this reproducibility is important. Each type of film must show precisely the same properties; only in this way can photographers do a proper job. And only in this way can they produce beautiful pictures!

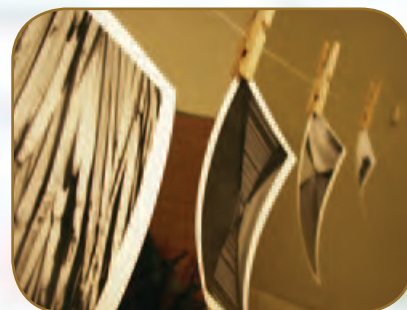
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Make a picture
of the GELITA
photo world



Gelatine is absolutely essential for: Films ...



...and high-quality photographic
paper for artists.



In the 1970s, everybody wanted one – the Polaroid camera. However, with the advent of digital photography, the end of this particular era was forecast. However, "The Impossible Project" proved to be the savior of the instant photo. Today, mainly artists work with this Polaroid technique.

Rapid to the power



Multitalent
Gelatine:
Indispensable
in surgery

of 3

Surgical operations demand the highest possible precision; they must also be fast. Bleeding not only weakens the patient, it also blurs the sight of the surgeon and makes the operation all the more complex. GELITA-SPON® Rapid³ stanches blood faster than any other gelatine sponge available. This is of advantage for the patient, the surgeon – and the Purchasing Manager.



Time management is important in surgery, for both medical and economic reasons. GELITA-SPON® Rapid³ saves not only time by stanching blood rapidly, but also because it is used in dry condition. Whilst other products have to be moistened first, GELITA-SPON® Rapid³ can be taken directly from the package and placed on the source of bleeding. And, as with any simplification that can be achieved in the operating theater, this renders surgery more efficient and cost-effective, apart from any benefits for the patient. For patients in particular, GELITA-SPON® Rapid³ has one other major advantage: the sponge is fully resorbed by the body within four weeks of application.

Hemostasis in less than a minute

GELITA-SPON® Rapid³ has been shown to stop bleeding within a minute of being applied – and is thus three times quicker than other sponges. Its unique absorptive power is due to its extremely porous microstructure and special grain surface.

Thanks to this structure, GELITA-SPON® Rapid³ is able to absorb extremely large amounts of fluid: it has a capacity for forty times its own weight – a quite unique performance.

The sponge with three essential advantages

From the point of view of the surgeon, the use of GELITA-SPON® Rapid³ is a suitable device not only for operations involving much loss of blood but also for particularly intricate operations such as take place in neurosurgery where clear vision is absolutely essential for the surgeon. In addition, GELITA-SPON® Rapid³ – apart from the important factor time – provides added safety by not having to be moistened, hence reducing the risk of contamination. Furthermore, the pH-neutral gelatine sponge is suitable as a carrier for drugs.

Gelatine in the body? Not for long! Gelatine sponges, used as blood stanchers due to their excellent compatibility with human tissues, are resorbed fully by the body.

And experience has shown that they even accelerate the healing process. In addition to the other properties mentioned above, they represent a real benefit for the patient.

GELITA-SPON® Rapid³ is made of multi-purified gelatine; the aqueous gelatine solution is first foamed and then dried, hardened and gamma-sterilized. It will become available from the spring of 2012. Studies have already shown how health-effective and economical it is and further comprehensive studies are planned prior to launch to confirm its enormous marketing potential. GELITA-SPON® Rapid³: a high-performance product for high-performance medicine.

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Soft spread

GELITA® Collagen Proteins



Can a table jelly be prepared faster? Collagens, gelatine and collagen peptides possess technological properties that make them indispensable for today's foodstuffs. Their ability to influence melting- and gelling points, their natural emulsifying properties, appetizing textures and excellent solubility guarantee high levels of enjoyment and market value – and recipes incorporating them can become blockbusters.

Collagen proteins from GELITA open up new worlds of enjoyment. These range from the manufacture of gummy bears, cheese spreads, beverages, functional foods and many other food items. By using gelatines of higher or lower Bloom values, the products melt or gel exactly when they should. This is because of their outstanding ability to form thermoreversible gels. Thus, they are predestined for the development of innovative product ideas and new food creations.

Collagen proteins are also able to influence texture. They thus determine for example how spreadable a cream cheese is or how much more mouth feel a mousse has. In order to achieve optimal consistency in

modern foodstuffs, GELITA® Gelatine is an important ingredient.

Highlights – but not just for light products

GELITA® Gelatine is eminently suitable for producing fluffy textures for all sorts of light foodstuffs. By varying its foaming and whipping properties, either light or full end products can be produced. If the product volume is to be increased – for example for low-calorie foodstuffs – GELITA® Gelatine can be used to reduce the amount of ingredients and hence the calorie count. However, taste is also of great importance in light products – this is

mainly influenced by the other ingredients while gelatine itself exercises no influence.

The consumer prefers foodstuffs that have an appetizing appearance that invite to enjoy. GELITA® Collagen Proteins give salad dressings, cheese dips, cheese spreads, desserts and beverages long-lasting freshness and an attractive degree of creaminess.

Product ideas welcome!

Does anyone know of the ice cream that begins to melt only after 2 hours? New foodstuffs are created when all the possibilities available to realize them are known. GELITA supports the development



Gourmet-Opener



New and tasty creations



Sweet temptation

of innovations in the area of foodstuffs by providing the appropriate collagen proteins. These range from partially soluble collagen to warm water-soluble gelatine to cold water-soluble collagen peptides, products for every conceivable application.

All-rounders: collagen proteins from GELITA

- Perfect gel formation for a wide variety of foodstuffs
- Optimal foam formation for fluffiness and product volume
- Homogeneous emulsions for appetizing and permanent freshness
- Customized solubility for every application

New GVP Procurement: Heinrich Schmidt

We now have a new face in our GELITA Management Team: Heinrich Schmidt, Global Vice President Procurement. 47-year-old Heinrich, who has a degree in industrial engineering, was appointed to this position as of July 1, 2011 and is responsible for global procurement.

Heinrich is already very active in his new role: "Procurement has always interested me and has even become a passion", says the family man. He brings with him many years of experience in operating and strategic procurement: from 1990 – 2005 he was Procurement Director at Heidelberg Druckmaschinen AG, a printing machine concern. Subsequently, he was Vice President Procurement & Logistics for the medium-sized mechanical engineering company bielomatik Leuze GmbH + Co KG, a globally active company. Now at GELITA, one of his first tasks is to implement a meaningfully structured global procurement system. He is enthused by the prospect: "Right from the beginning, I have found GELITA to be a really good company – dynamic and successful, with an exciting and varied product portfolio, with excellent values and principles and a highly motivated team" says Heinrich.



DATES TO NOTE:

Why not visit GELITA to see our innovative products and find out about tomorrow's trends?. During 2012 we are attending the following trade fairs:

FIC Shanghai (Food Ingredients China)	March 28–30, 2012
Vitafoods SA Sao Paulo	March 28–29, 2012
In-Cosmetics Barcelona	April 17–19, 2012
FIBO Essen, Germany (Fitness & Bodybuilding)	April 19–22, 2012
Vitafoods Geneve	May 22–24, 2012
IFT Las Vegas	June 25–28, 2012
FIPAN Sao Paulo	July 17–20, 2012
FISA Sao Paulo	September 18–20, 2012
SSW Las Vegas (SupplySideWest)	November 5–9, 2012
HIE Frankfurt, Germany (Healthy Ingredients Europe)	November 13–15, 2012

Simply GELITA!

The food service industry in USA and Brazil

We at GELITA love food! Thanks to gelatine and collagen peptides, many of our favorite dishes have become more digestible and even healthier. The numerous positive properties of these ingredients – from their unique melting attributes to their spreadability to their stability – can now be enjoyed by consumers in the USA and Brazil in their favorite cafes, restaurants or from their freezers: for these two large markets, GELITA's Food Innovations are now offering five gelatine products to numerous food service companies to enable them to improve their products conveniently, efficiently and with much variation.

GELITA® Gelcosol for example is ideal for dishes taken directly from the ice box. Our instant gelatines, specially developed for desserts and savory dishes, can even be substituted for eggs and fat. GELITA® RTE-ICE

prevents undesired syneresis – even after thawing. This multifunctional ingredient is particularly suitable for coatings and glazings but can also be substituted for protein in mousses. GELITA® Specialità helps to make neutrally tasting cookie and pastry fillings into products with excellent mouth feel and smooth texture. Fruity dips and sauces can also benefit from GELITA® Jelly Dipping it increases the viscosity of the dip and decreases cooking time. And GELITA® Leaf Gelatine enables even sophisticated dishes to be prepared quickly: this classic ingredient is simply indispensable in every kitchen, including those of the best chefs!

By the way: many of the GELITA Food Innovations correspond to the requirements of the OU (Orthodox Union) and may therefore be used in the preparation of kosher dishes.



Sweden – just as in the stories by Astrid Lindgren – peaceful, calm ...simply nice!

Masthead

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Can a country really be so idyllic as described in Astrid Lindgren's books? Yes and no is the answer. Of course, not everything is as rosy as described; however, much is in fact exemplary. For example, the Swedes' understanding of democracy, social justice and environmental protection. One third of their energy needs are met from regenerable sources – and this is planned to increase substantially. Their environmental conscience and devotion to nature is quite unique; this is no wonder really in a country with 9 million population and larger than California with its 34 million. And a massive 11% of the area is devoted to national parks and other protected areas!

GELITA – worldwide

Sweden

Portrait

The GELITA plant there falls into the same category: with its environmental, quality and service standards, the Stidsvig plant is a real showpiece. For example, the process water taken from the river is repurified to 99% before being returned to the river. An efficient recycling system ensures that energy consumption and pollution of the air is kept to an absolute minimum. It was not without reason therefore that the Stidsvig plant, that produces gelatine from pigskin, was the first of the GELITA plants worldwide to be certificated according to environmental standard ISO 14001. And Stidsvig in fact goes well beyond these standards: the entire production process is computer-controlled and in principle only eight people are required to run it. Raw materials are sourced only from suppliers with a license for foodstuffs and elaborate quality control procedures ensure first-class products. And, to crown it all, the GELITA Club provides numerous attractive leisure activities so that the employees really feel "at home" in the company.

GELITA plant in Sweden:

Stidsvig (Klippan)

GELITA plant in Stidsvig

Stidsvig, a village with a population of only 747, is part of the Klippan community some 40 km north-east of Helsingborg in the beautiful Schonen region in the south-west of Sweden.

Employees: GELITA Sweden employs 190 people.

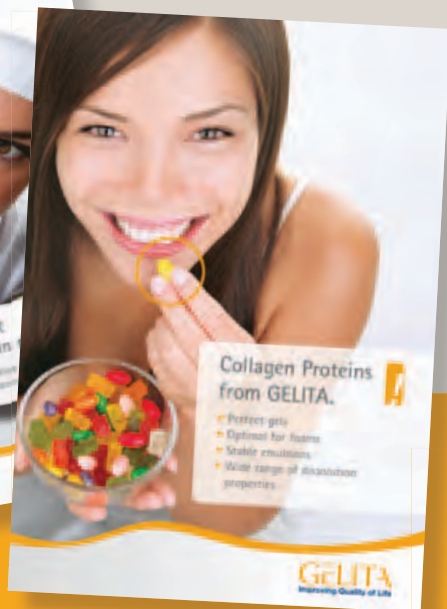
Plant: 1.2 quadrat km in size.

Production: 11,500 tons annually, primarily foodstuff-quality gelatine for confectionery, desserts, meat- and dairy products and for certain medical applications.



Modern showpiece green-field factory

Klippan



You can download our latest product brochures free of charge under www.gelita.com



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GELITA
Improving Quality of Life