

Wiegand-Glas FAMILY OWNED AND RUN FOR FOUR GENERATIONS

This article focuses on Wiegand-Glas, one of the top three glass container manufacturers in Germany. It manufactures more than eight million glass containers daily for the beverage and food industry at four plants in Steinbach am Wald (Bavaria), Ernstthal, Großbreitenbach and Schleusingen (Thuringia).

Nikolaus Wiegand and Oliver Wiegand run the successful family-owned company in the fourth generation, relying on both tradition and modern technology at the same time. The group generated 2015 consolidated recorded sales within Europe of around EUR 480 million.

The Wiegand family has been involved in the material glass for more than 400 years. The direct access to wood, limestone and sand deposits, the most important raw materials in glass production, were the basis for building the company's two glass plants in Bavaria and Thuringia. But whilst the company stands

on this strong foundation of a long and successful tradition, it is completely focused on the future.

THE INTRINSIC VALUE OF GLASS

According to Wiegand-Glas, glass is a sign of our individuality as humans. It combines the need for elegance, quality and sensory enjoyment. "Glass is something that we consciously enjoy. The transparency of the material is seen as a symbol of trust in the product. Its stability and beauty give drinks and food the value they deserve. Glass is an inseparable part of our culture."

When the outer appearance corresponds with the character

of the contents, the result is the image of a unique product. The individual symbiosis of design and content helps us to find our way through the maze of products. The shape and the colour of an individually designed bottle reveal the taste and spirit of its contents.

ROOM TO EXPRESS CREATIVITY

Wiegand-Glas offers tailor-made solutions so customers can stand out clearly from their competitors and be seen as individual and unique.

The possibilities of container glass decoration are diverse. No matter if transparent, opaque,



A bottle with its own opener

A bottle with its own opener was the challenge presented to Wiegand-Glas in designing the bottle for Salitos Tequila Flavoured Beer. In cooperation with external partners, Wiegand-Glas developed the entire process for Salitos, all the way to the decoration of the bottle. The triumph of the legendary bottle is unwaning, and Salitos is still very popular especially at parties and events... The secret is in the bottom of the bottle.

glossy or frosted or in a special colour – the application technology of Wiegand-Glas makes it all possible.

The in-house coating facility ensures the customer's individual requirements are met, giving bottles more character and soul. Coating is carried out electrostatically with water-based varnish, while fully automatic bottle handling allows a non-stop production. The system works ecologically and free of solvents thus contributing significantly to the environment.

The wide range of Wiegand-Glas products includes all types of standard glass packaging as well as individual returnable and non-returnable bottles/jars. There is a packaging solution for every type of product, produced either by combining traditional shapes, colours and finishes or by creating a completely new product design.

Standard bottles, whether for returnable or non-returnable use, can be easily incorporated into today's distribution channels, making them particularly suitable for any kind of drinks.

Individual shapes attract the attention of the customer. Together with customer product designers Wiegand-Glas develops and produces glass containers ranging from volumes of 100 ml up to 2 litres, and in a wide range of colours.

Customers are offered a range of packaging concepts encompassing everything from the design of the individual bottle, to production and delivery to the filling. Quality management is certified according to DIN EN ISO 14001, guaranteeing the highest level of process stability.

In fact, quality is monitored even before production commences. Computer simulation software detects critical areas in the container thus avoiding possible defects prior to the first bottle being produced.

COMPANY PRESENTATION

ENVIRONMENTAL PROTECTION – TAKING RESPONSIBILITY

Acting ecologically and sustainably underpins everything Wiegand-Glas does. Glass is one of the few materials that can be fully recycled and this contributes considerably to environmental protection. The location of its plants in the Franconia and Thuringia Forests commits the company to being responsible for the environment. It pays the same attention to clean air, environment and pure water as to the quality of its products.

Wiegand-Glas is the leading company in the German container glass industry in terms of its early use of cullet and ongoing efforts to raise the cullet level in production, as well as the reduction of energy consumption. Today, around 80 per cent of its raw material needs are fulfilled using recycled glass.

Wiegand-Glas is committed to further reducing container weights, and to identifying even more energy-saving solutions in production while striving to minimize emissions below current advances. In doing so Wiegand-Glas manages to combine both tradition and future.

Modern waste gas purification plants clean the combustion air before it is released into the atmosphere. A large proportion of the heat dissipated by its plants is fed back into the production process. The plants run their own water



purification plants and operate a closed cooling water system. This results in minimal consumption and pollution of fresh water resources.

The company undergoes ongoing monitoring by public authorities as well as by its own specialists.

AN OVERVIEW OF WEIGAND-GLAS PRODUCTION PROCESS

Sand, soda ash, dolomite and limestone, as well as refining and colouring agents, are delivered by train or truck directly to the batch house, and then the process begins.

Recycling

Three recycling plants clean and remove waste material from more than 1,200 tons of glass. On average, a new bottle is made out of 80 per cent recycled glass. After bottling, distribution and consumption of the products, the product life cycle starts again from the beginning.



Glass melting

The melting process is conducted at a temperature of 1,600°C in six large melting furnaces located at the Steinbach am Wald and Großbreitenbach plants. The molten glass is formed into new glass containers on 14 production lines. The residual energy is used to preheat combustion air, raw material and cullet.

Forming

In the press-blow process, the glass gob is pressed into the blank mould and formed to the parison. In the blow-blow process, this is done using compressed air. The parison is then placed into the blow mould and blown into its final shape.

Coating and Annealing

The hot-end coating conditions the external glass surface. Following the cooling and the annealing of the bottle in the lehr, the cold-end coating is applied. This guarantees perfect surface protection.

Quality control

A sophisticated quality management system ensures that at any given moment, only high-quality glass containers are packed. One hundred per cent of the production is automatically inspected. In addition, samples are drawn randomly to inspect weight, internal pressure resist-

High tech to reduce CO2-emissions

The story of the LoNOx-Melter® began in the mid 1980s when the glass industry was forced by the government to reduce emissions from the melting furnaces. The Wiegand-Glas furnaces are state-of-the-art and guarantee maximum glass quality at minimum NOx- and CO2-emissions. The entire process is automatically computer controlled from batch preparation and glass melting to waste gas cleaning.



ACQUISITION

In January 2016 Wiegand-Glas group acquired 100 per cent of shares of Glaswerk Ernstthal GmbH and Glaswerk Ernstthal GmbH & Co. KG from its previous owners.

Oliver Wiegand and Nikolaus Wiegand are appointed as managing directors of all companies, while Thomas Köhler remains managing director of Glaswerk Ernstthal GmbH. The registered office of Glaswerk Ernstthal GmbH & Co. KG will be moved from Wuppertal to Steinbach am Wald. Employment conditions of all employees at the locations in Ernstthal, Neuhaus am Rennweg and Holzminden will remain unchanged.

The acquisition is a win-win situation for both companies, and the growing Wiegand-Glas group will offer important advantages in the future.

The take-over is also an important step in securing the company's competitiveness in the rapidly consolidating market for glass containers. By integrating Glaswerk Ernstthal into the Wiegand-Glas group two complementary product and customer portfolios come together, strengthening the position of Wiegand-Glas in the spirits and spirit miniatures market considerably.

An important strategic advantage of Wiegand-Glas has always been the use of the latest technologies and innovations, and this will be one of the key factors for the continued success of the group. This acquisition reaffirms the company's confidence in glass, as well as in the economic strength of the region and its workforce.



on pallets. The pallets are covered with plastic shrouds and shrunk for protection and stability.

Storage and shipment

The Wiegand-Glas transport companies work closely with a number of external shipping agents ensuring that customers always have the right number of bottles available. Glass containers are stored for customers and the logistics system allows for just-in-time delivery.

The company uses the latest technology for the process control of forming and quality assurance. Production defects are detected and removed immediately, thus preventing defect bottles. Wiegand-Glas has realized all its investments in state-of-the-art technology with respect to environmental protection.

AHEAD WITH INNOVATION

The completely automatic NIS forming machine, developed for the production of glass containers, is driven by servomotors and replaces the standard pneumatic machine concept. It sets new trends regarding accessibility, mould exchanges and noise emissions. The movements of the mechanisms can be precisely set,

thus improving process stability in comparison with standard machines. The profile of the movements can be optimised via a control panel, enabling a reduction of cycle times.

SERVICE

Wiegand-Glas' skilled and enthusiastic staff aims to satisfy customers' needs and demands quickly and precisely. The friendly and respectful atmosphere within the company is reflected in its relationship with its business partners. Wiegand-Glas aims to continue to set the scene for positive and innovative developments in the international glass industry, above all in ecology and sustainability. ■



ance, dimensions and other specifications.

Packing

After quality control, the bottles are automatically packed in layers

Wiegand-Glas

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