



Industry Information

Adhesive Solutions for the Food and Consumer Goods Industry

Your partner in bonding

Jowat
Klebstoffe



Reliable at top speeds

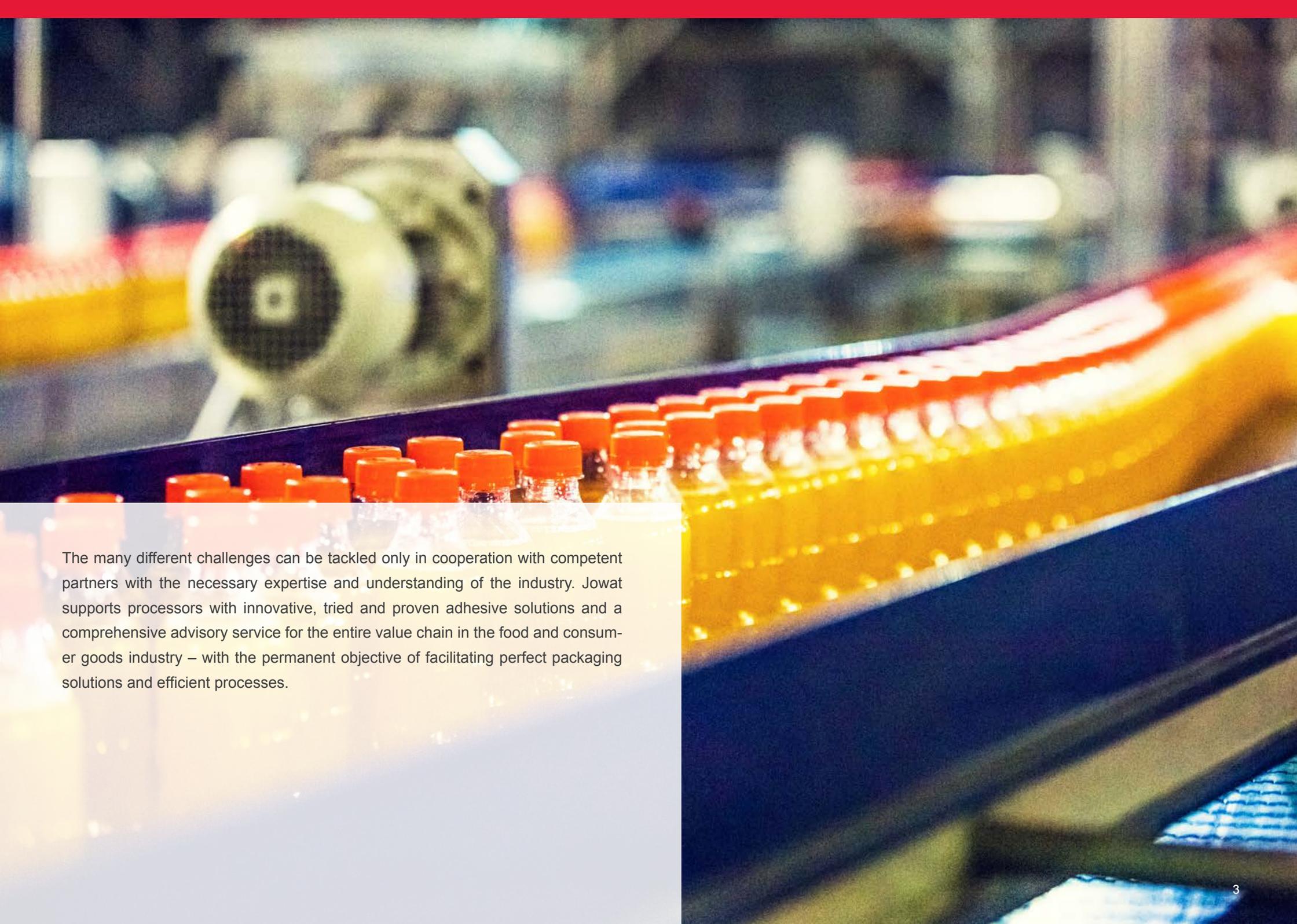
Optimum adhesive solutions for the food and consumer goods industry.

Hardly any other sector is characterised by such fast pace like the food and consumer goods industry. Manufacturing and packaging processes have to be just as fast and flexible as spontaneously as the consumer goods are purchased. In rapidly developing markets like this one, specialised partners are essential to facilitate superior products with a packaging that also sets the article apart from the competition.

Packaging industry

Everyday consumer products such as food, toiletries and cleaners are fast moving consumer goods (FMCG) that are bought frequently and spontaneously, and which are quickly replaced again on store shelves. The high turnover rate of these products is matched by the speed in the packaging process. They are characterised by short cycle times in highly efficient processes, flexible format changeovers for the fast production of a multitude of different products, and short-term design modifications to meet the zeitgeist of the times. The latest trend of open packaging, for instance, facilitates a better view of the product and draws the customers' attention to the article at the point of sale. High-quality packaging solutions have to

meet increasing demands. Especially in the case of fast moving consumer goods, a functional and high-quality packaging with a superior appearance can be a decisive factor in whether a product is bought or not. This is particularly true for packaging with a high emotional experience factor, like confectionery packaging. In food packaging processes, the requirements are generally even significantly higher. In addition to facilitating an attractive appearance and easy handling, the packaging also has to protect the product. Cases of mineral oil migration into food, especially from recycled paper packaging, have marked the food industry. Therefore, food safety is a major concern, and suitable solutions, such as reliable barrier layers, are needed.

A photograph of a factory production line. In the foreground, a dark blue conveyor belt carries a long, curved row of small, clear plastic bottles with orange caps. The bottles are filled with a yellow liquid. The background is blurred, showing industrial machinery and lights. A semi-transparent white box containing text is overlaid on the left side of the image.

The many different challenges can be tackled only in cooperation with competent partners with the necessary expertise and understanding of the industry. Jowat supports processors with innovative, tried and proven adhesive solutions and a comprehensive advisory service for the entire value chain in the food and consumer goods industry – with the permanent objective of facilitating perfect packaging solutions and efficient processes.

Solutions for the entire process chain

Manufacturing, packing, transport.

Jowat supports the production of packaging materials and the packing process with innovative adhesives for the entire value chain in the packaging industry.

Adhesives for efficient packaging processes

Tailor-made adhesives play a major role in ensuring reliable packaging processes. From the erecting and closing of primary and secondary packaging like bags, folding cases, trays or wrap-arounds, to the application of caps and straws, labelling, special applications with demanding substrates, and to anti-slip coatings for securing loads – special adhesive products can lead to considerably improved packaging materials and processes.

Modern and powerful adhesives from Jowat provide a permanent and secure bond even at highest manufacturing speeds, facilitate an attractive appearance of the packaging, and play a major role in tackling current challenges such as energy efficiency, sustainability, and food safety. Jowat supports processors with a competent advisory service and assistance in all matters related to the different bonding applications.

PACKAGING PROCESS

Primary packaging



Folding Boxes

Erecting, closing

Paper packaging

Paper wrappers

Beverage cartons

CAP application,
attaching straws

Labelling

Inline labelling

Bags

Bag manufacturing and sealing
on mandrel wheel packaging
units



The prevention of mineral oil migration into the packaged goods is a major concern in the packaging industry. Jowat supplies modern hot melt and dispersion adhesives for the demanding process of bonding recycled and virgin fibre substrates with barrier coatings.

Secondary packaging



Cases

Erecting, closing

Trays

Erecting

Wrap-arounds

Erecting, closing

Shelf-ready packaging

Erecting, closing



Adhesives used to bond the packaging of sensitive goods, for instance baby food, tea, or chocolate, have to meet special demands. This requires greatest care and expertise in their development. Jowat supplies tailor-made solutions for many applications in the food industry.



Modern adhesives based on renewable raw materials are a priority for products currently developed by Jowat. Special consideration is given to ensure that the used raw materials are not only renewable but also from reputable sources and have an optimised ecological footprint. So-called low-temp hot melt adhesives also contribute to a sustainable use of resources. Lower processing temperatures reduce the energy consumption and have a positive effect on workplace safety and environment.

Transport safety



Anti-slip coating



Adhesives used to secure loads during transport impress with major benefits. In addition to bonding, they also function as an anti-slip coating or spacing bead to protect the goods during transport and storage.

Safely packaged

Packaging food without altering its flavour.

Food safety plays a major role in packaging processes. About every second packaging manufactured around the globe comes into contact with food. Compliance with food contact regulations also depends on the adhesive. Jowat provides optimum solutions consisting of tailor-made PO hot melt adhesives and a competent advisory service to meet the high requirements.

Food safety

Since the enterprise's early years, food safety has always been a key priority in the development of Jowat adhesives. From choosing raw materials, to meeting regulatory guidelines and supporting customers in matters related to food contact regulations. Many PO hot melt adhesives from the Jowat-Toptherm® series and EVA hot melt adhesives from the Jowatherm® series are approved for food packaging according to strict legal requirements. The powerful adhesives have been established in demanding packaging processes around the world for many years due to characteristics which are adapted optimally to these applications – short setting times, a sharp cut-off, high yield, and clean processing. To achieve

odourless adhesives, Jowat uses only raw materials of superior quality in the formulation of the PO hot melt adhesives, which are used for instance to wrap sweets or chocolate. To support processors in their compliance effort, the adhesives specialist also provides results from MOSH/MOAH tests and NIAS analyses in which the adhesive has been tested for non-intentionally added substances.

Mineral oil contamination in food is a hot topic in the packaging industry. The focus is on food packaging made from recycled printed paper as one of the main sources for the migration of mineral oil components. However, there are also other factors in the production process, which can be a source of contamination apart from printing ink ingredients. Functional



barrier layers for packaging made from recycled cardboard are in many cases absolutely essential, and there are a multitude of different barrier systems available on the market to prevent the migration of mineral oil from the packaging material into the food. When bonding such substrates with a mineral oil barrier, processors can count on the benefits of Jowat-Toptherm[®] adhesives and a comprehensive expertise. Jowat supplies best-fitting and efficient solutions for all applications in the packaging processes of the food and consumer goods industry.

Powerful and flexible

High-performance adhesives for end-of-line processes.

Highly efficient processes, food safety, frequently changing designs: The requirements for packaging materials and processes are extremely complex. Whether the bonding of paper wrappers, folding boxes, cases, or trays - high-performance adhesives support processors in all applications.

Requirements for the packaging materials and processes in the food and consumer goods industry are constantly increasing. The variety of different surfaces and formats is virtually unlimited, permanently rising expectations regarding efficiency have led to ever-shorter process cycles, and sustainability objectives are becoming more ambitious as well. This demands a deep understanding of the specific challenges in packaging applications and high-performance adhesives with optimally adapted characteristics. Whether for the complex erecting and closing procedure of cardboard cases, or for the permanent and secure bonding of paper wrappers – Jowat supplies best-fitting adhesive solutions.





Food and consumer goods



Folding boxes

High yield and clean processing, excellent adhesion and fast setting – powerful hot melt adhesives are essential for the smooth erecting and closing of folding boxes. Primary packaging has to be bonded extremely fast even in unfavourable pressing conditions. In food packaging processes, another major focus is food safety. In addition to the general process and regulatory requirements for the adhesive, many special applications need individual solutions. Bonding tea boxes, for instance, is coupled with some unique challenges. Due to the essential oils in the tea, for instance bergamot oil, migration from the inside is here also an issue as well as migration from the outside. Due to the solvent-like properties of bergamot oil, after several months it can have a detrimental effect on the performance of an adhesive that would have worked perfectly in other standard folding box bonding applications. Jowat supplies a range of products with high resistance to essential oils for this special application. Those adhesives facilitate a safe and permanent bonding of even demanding tea boxes. PO hot melts from the Jowat-Toptherm® series are also ideal for bonding packaging with a high level of finishing, like used for cosmetic products. Due to the very wide range of adhesion of the adhesives, they join even very difficult surfaces. Jowat-Toptherm® adhesives are also resistant to extreme temperatures. They provide a reliable bond and facilitate a safe transport of the frozen goods from the packaging process to the consumer, even at temperatures down to -40 °C in deep-freeze applications. Furthermore, Jowat hot melt adhesives also provide the high heat resistance in hot filling processes or high ambient temperatures necessary to ensure an optimal presentation of the packaging to the consumer.

Paper wrappers

Paper wrappers for sweets or ream wraps of office paper put very special demands on the bonding process. Due to the very thin substrate, the adhesive has to be applied at a temperature as low as possible. Otherwise, the heat could melt the surface of the chocolate, changing its appearance. In addition, the materials used for paper wrappers and ream wraps are often difficult to bond, requiring an adhesive with an optimum adhesion to the substrate. Jowat has been active in this field for many years and supplies a range of tailor-made adhesives developed especially for this application and approved according to food contact regulations. The polyolefin hot melt adhesives from the Jowat-Toptherm® series impress with an adhesion above average, which facilitates the bonding of even aluminium-coated or lacquered substrates. Due to the low processing temperature, these high-performance adhesives are also ideal for the paper wrappers of candies. Taste is also a major concern. Chocolate, for instance, can absorb odours, which could alter the product's flavour. Extensive organoleptic tests are frequently carried out to ensure that the food properties of the food are not affected by the adhesive. Jowat PO hot melts for confectionery packaging are formulated with the purest raw material of superior quality to achieve virtually odourless adhesives. The perfectly adapted PO hot melts from Jowat for paper wrappers and ream wraps provide an optimum and efficient adhesive solution for the high requirements in this application.

Food and consumer goods



Small bags

The bonding operation to close small bags filled with free-flowing, dry bulk material such as coffee, sugar, or flour on mandrel wheel packaging units presents a big challenge. Adhesives used in this application are adapted to increasing line speeds and adhere to different surfaces – from the basic paper of sugar bags to the premium finish of coffee bags. Jowacoll® dispersions impress with optimum setting properties, a good and permanent adhesion, as well as best mechanical processing characteristics.

Trays and cases

Powerful hot melt adhesives also facilitate a stable erecting and closing of secondary packaging. The efficient polyolefin hot melt adhesives from Jowat provide an adhesive solution not only for different applications, such as erecting trays, and closing cardboard cases or wrap-arounds, but also for special challenges. For a successful bonding of rigid cardboard cases and special shelf-ready packaging, the adhesive has to tackle the very high restoring forces due to the 180 degree folds of the flaps. The bond often also has to resist high temperatures as they may occur during the hot filling of the product, in downline processing after packaging, or during transport. Jowat-Toptherm® PO hot melt adhesives provide the very high initial strength and a high heat resistance necessary. In addition, the hot melts also impress with minimal stringing, best conveying properties on automatic dispensing systems, as well as very stable processing characteristics. Therefore, they play a major role in facilitating efficient packaging processes.



Maximum performance, no odour

Caps and straws need powerful bonding partners.

A multitude of straw and closure systems on beverage cartons are supposed to ensure a maximum handling comfort and undiminished enjoyment of drinks for consumers. Powerful adhesives with special characteristics facilitate permanent adhesion and an appealing appearance.

Beverage cartons

Closures and straws must be easy to remove as well as reliable. And just like beverage cartons, they are available in a very wide variety. Consumers are therefore provided with a broad range of different flip and screw caps, as well as different designs of drinking straws to suit every taste. Adhesives play an important role in facilitating an appealing exterior appearance and easy handling of the packaging, cap, and straw. Due to the special challenges in the manufacturing process, they have to meet high requirements. The bonding operations of caps as well as straws are characterised by constantly increasing line speeds and a rising variety of different materials. Therefore, the adhesives have to ensure a high initial strengths as well as a good adhesion to different substrates with low application amounts. High resistances of the adhesive to ambient conditions like heat, low temperatures, and water

are also necessary to ensure optimum and permanent adhesion after hot filling and subsequent cooling processes. Another requirement of paramount importance: compliance with food contact regulations.

Powerful Jowat® CAP adhesives are characterised by high thermal stability in the melt, high flexibility at low temperatures, and high heat resistance, as well as a very broad spectrum of adhesion. The special hot melt adhesives are available in pillow form with several benefits to processors: An easy and clean, and compared to blocks, a less time-consuming processing, as well as substantially reduced packaging waste. Jowat® CAP adhesives are nearly odour- and colourless, and approved for direct food contact.

Due to the multitude of straw designs and different surfaces of the foil wrap, the requirements for the adhesives used in this application are high. In addition, the adhesives have to be transparent, facilitating a clean application to ensure a flawless appearance of the beverage carton. They also have to provide a secure and permanent bond that can resist high mechanical stress in down-line packaging processes as well as during transport and handling by the consumer.



A successful label

Adhesive solutions for perfect-fit messages.

By carrying the message of a brand, labels can influence the customer's decision. The choice of the right adhesive depends on more than just the flawless exterior appearance of the label.

Labelling

Special adhesives from the product series Jowat-Toptherm® and Jowatherm® facilitate a strong, flexible, and clean bonding of labels to containers, as well as comfortable handling and an attractive appearance. Some container types, for instance PET bottles, may expand or collapse depending on the ambient conditions. To ensure this does not affect the superior appearance, the adhesive must be able to compensate for the different size of the bottle and the label. In addition, the clean adhesives from the Jowat-Toptherm® product series for labelling do not bleed through even thin and sensitive paper labels. Jowat-Toptherm® products based on polyolefin also impress with a long thermal

stability in the melt, low stringing during application, as well as reduced energy consumption. The adhesives are characterised by optimum adhesion to containers made from a wide range of materials like PE, PP, PET, aluminium, sheet metal, or glass. Rubber-based adhesives from the Jowatherm® series have an outstanding surface tack, and have been developed especially for containers of carbonated drinks. The adhesive products from both series have been approved according to food contact regulations.



Nothing slipping

Safe transport thanks to functional adhesives.

Adhesives used to secure loads during transport impress with profitable advantages: They not only bond but also function as an anti-slip coating to protect goods during transport and storage.

Transport safety

Special Jowacoll® dispersions or Jowatherm® hot melt adhesives can help keep loads in place during palletising. This can be achieved by directly coating e.g. the secondary packaging like cases with an adhesive. Another possibility is to apply the adhesive inline onto paper or cardboard in-between sheets during the palletising process, or to precoat paper with it. Applied as an anti-slip coating on the top surface of the cardboard, the adhesive keeps a slight surface tack and dullness after cooling. This stabilises the boxes and bags during transport and facilitates an easy removal. There are no residues during depalletising. In addition, it is also possible to safely increase the palletising height.



Your partner for modern packaging processes

Polyolefin adhesives for the food and consumer goods industry.

Packaging processes of fast-moving consumer goods are characterised by high speeds, frequently format changes and demanding surfaces. Innovative, efficient adhesive solutions are needed to meet the many different requirements.

Adhesive power

Polyolefin hot melt adhesives facilitate modern packaging processes and have become indispensable. Jowat-Toptherm® PO hot melt adhesives provide considerable benefits due to characteristics that are optimally adapted to the applications in the food and consumer products industry. Their fast setting enables short process cycles. Optimised processing characteristics, such as a sharp cut-off, minimise the soiling of machine parts and lead to less downtimes for cleaning. A high yield facilitates reduced application amounts. And due to the wide range of adhesion, they can bond different and difficult surfaces. In addition, Jowat-Toptherm® PO hot melt adhesives also impress in special applications. For instance, very demanding food packaging in the highly sensitive infant nutrition business.

Or the tamper-evident closure of prescription drugs, which will become a legal requirement from 2019 onwards. New Jowat-Toptherm® hot melt adhesives provide heat resistances that seemed unachievable a few years ago. Pharmaceutical companies can therefore increase the safety of their packaging with a reliable bond even at elevated temperatures, which ensures that the packaging remains closed until it reaches the consumer.

Due to the many benefits, these high-performance adhesives are an optimum solution for all applications in packaging processes. From erecting trays to closing folding boxes or wrap-arounds: A single Jowat-Toptherm® adhesive can frequently meet all the bonding requirements in a company.

The universal fields of application of these products reduce the complexity in purchasing and handling.

Have we sparked your interest?

As an active innovation partner, Jowat supports processors in the food and consumer goods industry around the world in meeting the expectations of their customers. As one of the globally leading adhesive specialists with many decades of experience, we have a deep understanding of the different challenges in the packaging processes of fast-moving consumer goods – from ever-shorter cycle times, increasingly demanding surfaces or rising requirements regarding process efficiency and sustainability of the packaging.



We are part of the entire manufacturing chain and provide a comprehensive advisory service and competent know-how: from the constant search for and testing of new, sustainable raw materials to the development of innovative adhesive products in close cooperation with sub-suppliers and processors within the framework of the technical advisory service, to individual process analyses. For many years, Jowat has played a major role in safeguarding success and protecting investments by delivering adhesive solutions for modern packaging processes to optimise products and processes. Have we sparked your interest? Contact us! We look forward to working together.



www.jowat.com

Jowat SE

Ernst-Hilker-Straße 10-14

32758 Detmold · Germany

Telefon +49 (0) 5231 749-0

www.jowat.de · info@jowat.de