

Editorial

Dr. Ralf Schelbach

Vice President Asia-Pacific



Dear Reader, welcome to the latest edition of our customer magazine "Progress", now in a completely revised format.

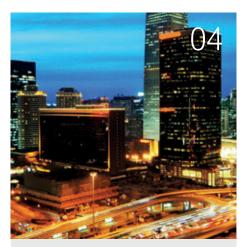
Do you know the feeling? Allways more and more, if possible at the same time, and with the shortest deadlines?

Demands are rising, and are constantly changing – on us as individuals as well as on organisations, services and products.

In order to stay "on track", people have to adapt very specifically to an environment

which is in a highly dynamic and complex process of compacting. Topics like self-management, work-life balance, a focus on health and values, all of this plays an important role.

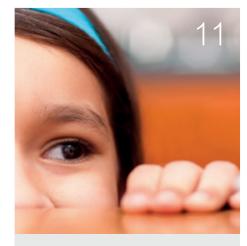
The clearly perceptible "compacting" also affects the manufacturing world, and in consequence the requirements on the adhesives made by Jowat. This



Compacting on all levels Successful response to increasing dynaxity

Precision on smallest surfaces
Superfine dosing of adhesive
for global communications

Automotive | Textile | Electrical Industry



Reduction t o essentials

The optimum application amount – a system decision

Wood | Furniture | Construction Industry

Focus

is what we encounter for instance when we work together with our customers and partners to optimise adhesive application amounts, or the manufacture of packaging units that tend to get smaller and smaller, or perfectioning of technical products that are constantly becoming more complex.

We as an organisation also face the challenge of the compacting trend, by permanently examining our corporate structures and implementation of adequate changes in our processes to ensure a long-term optimum response to the demands of the market.

Enjoy reading the next pages with captivating information on these and other topics.

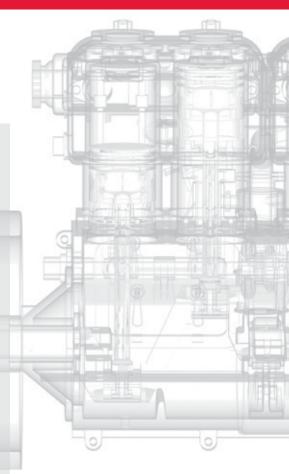
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P.S.



We have packaged this edition of our customer magazine into a new format for you. We would be very pleased to get your response to this new face of "Progress", with possible improvements and topics and aspects you want to see covered in the future. Please participate in our current online customer questionnaire, where you can win some interesting prizes. We are looking forward to your feedback under http://survey.jowat.com



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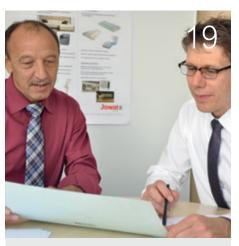


Just a small sipGrowing beverage markets and

increasing demands for perfect

packaging

Paper | Packaging Industry



New focus: Product Marketing and Application Engineering

Organisational realignment for more transparency and closer customer contact

Global



Inside Jowat

People, analyses, perspectives, events in a global environment

Inside



A working and private environment, characterised by increasing complexity and dynamics, is a major challenge for individuals and also for all kinds of organisations. As soon as we have halfways mastered a difficult task and developed a solution for it, the original situation has changed again.

In this more and more compact environment, with its constantly higher demands, we will only be able to remain competitive if we focus on adapting to it. There are several developments which together create this perceivable compacting effect:

- globalisation and multiplying networks among the interactions of the economy, of work, but also of private lives,
- accelerated changes due to modern technologies and socio-demographic shifts (migration, competition among the "young" and "hungry" and the "old" and "saturated" states),
- changing values and megatrends like urbanisation, mobility, internet usage, ecology, and individualisation, as integrated processes of change with impacts on all aspects of society,
- rising demands on products, services, and in consequence on people as well as on processes that are expected to become constantly more efficient (more performance in less time),
- the multifunctionality of devices which are expected to become at the same time smaller and more easy to handle,
- a rising rate of innovations accompanied by shorter innovation cycles.

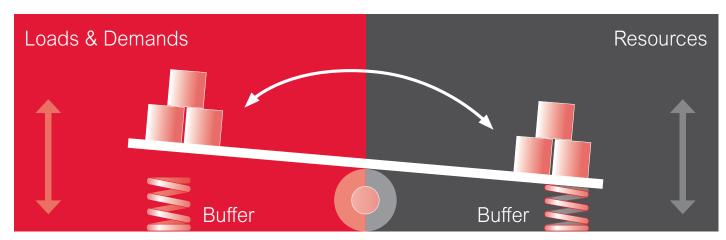


The demand: Dynaxity

On a higher level of abstraction, this means that everything changes much faster (dynamics) and also that products, services and processes are constantly becoming more complex. To describe this, we have quite a while ago coined the artificial word "dynaxity"; the real problem is actually the inherent dynaxity of the systems. There is a risk that for example the earth warming, crime, and internet spying, or even the financial crisis, may entirely escape human control. As a result, the challenges of our environment, and

our chances to master these, may draw further and further apart – with the consequence of higher strain levels or possibly unfavourable mental stress which in the long run may lead to various (mental) illnesses. These in turn reduce our capacity to meet our challenges like for instance the increasing compacting effect. When we have to meet higher demands and challenges in less time, and often with less personnel, this compacting turns into a core problem.

Work Life Balance



The Author



Prof. Michael Kastner (MD, PhD)

Michael Kastner studied medicine (MD), philosophy (PhD) and psychology (graduate psychologist), and qualified as professor in psychology (University).

Since March 2011, after professorships in Munich and Dortmund, he is lecturing and researching as University Professor in the medical faculty at the Mannheim Institute of Public Health (MIPH), at the University of Heidelberg and at the Private University Witten/ Herdecke.

Michael Kastner acts as advisor for many organisations in industry and administration, and serves on numerous scientific panels. His teaching and reasearch focuses are mainly in the three fields Organisational and Human Resources development, personnel and health management.

The solution: Maintaining the balance

The core idea is: When the stress levels (e.g. noise) and requirements (e. g. workload) rise on one side, we have to increase the resources on the opposite side. Both sides refer in each case to the person (e.g. perfectionism on the left and capabilities on the right), the situation (e.g. high, compacted workload left and good IT equipment right) and the organisation (e.g. high level of regulations left and good corporate culture plus smooth processes right). These three factors, person, situation and organisation are in dynamic interaction processes. When successful, the "seesaw" remains in balance over time. If this is not successful, and the stresses and requirements are heavier than the resources, the seesaw tips to the left (excessive demands). If on the other hand the resources are heavier than the loads and requirements, the seesaw tips to the right (underchallenge, e.g. when out of work). If the buffers are inadequate (e.g. time, personnel) to offset these unbalancing processes, the result in downwards spirals over long periods will be burnout and depression on the left, respectively boreaut and loss of capabilities on the right side of the seesaw.

If, however, the balancing processes of stresses and demands, resources and buffers, hold the balance, an adequate level of requirements develops, with the consequent mental health.

Measures for handling increasing compacting

The increasing dynaxic challenges, characterised by the rising level of compacting, must be met with the right steps concerning people, situations in the work and private environments (work-life balance), and in the organisation (examples would be a culture of trust, of learning from errors, and of innovation and health).

A With regard to people, we need to reach a better self-management, covering qualification, flexibility, readiness to change and willingness to learn, experience, innovativeness, social competence etc. throughout the entire life.

- B Concerning the situations, we need to create working conditions that are integrative and sustainable, promote health and learning, and are also age-adapted under work-life balance aspects.
- C Regarding the organisation, we must achieve regulations, processes, cultures etc. which promote long-term health and performance. Good health is among other things a result of esteem, adequate scope for activities, good leadership with clear responsibilities

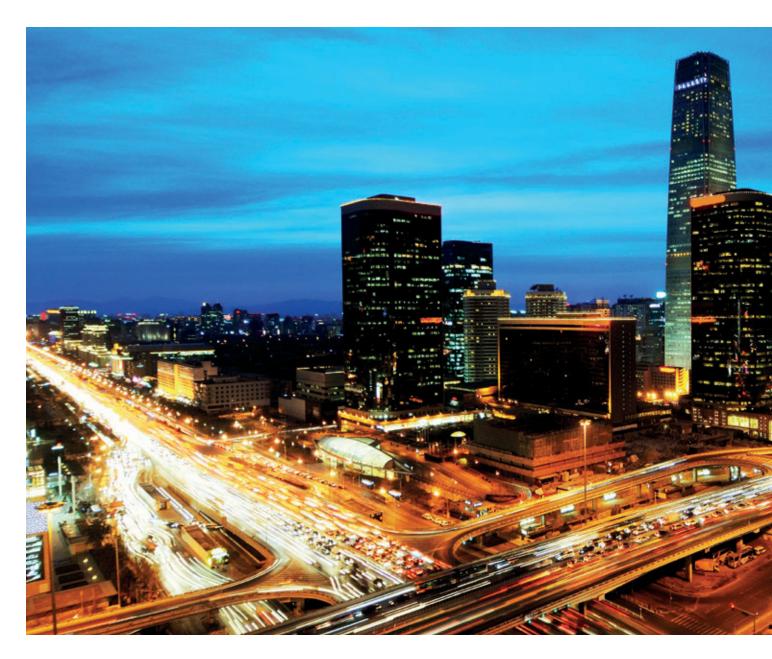
etc. When our environment changes due to the processes described with their (inherent) dynaxic momentum – with the resulting compacting speed which accelerates too fast for human evolution to adapt – the balance of demands, resources and buffers is lost, leading to stress overload and illnesses for both people and organisations.

Humans are emotional, social, running, rhythmic "animals", but also cultural beings, and as such they need safety and security, comfort, predictability and plannability, and the feeling to be "on top of things" in order to master these compacting tasks. And all of this under difficult conditions resulting from the demographic development with all its consequences.

Successful management of complexity and dynamics

To finally master compacting, we must implement an integrative and sustainable management which optimises the following components and their interaction:

- Health: We will have to take care much more intensively of the (mental) health of the employees.
- Achievement/Performance: We will have to adapt the performance demands to humans.
- Diversity: We will have to integrate



for example qualifiable and qualified migrants,

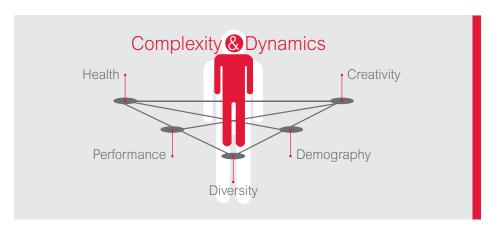
- Demography: We will need to work until the age of 70.
- Innovative spirit, consisting of the readiness for and capability of inno-

vation. After all, we still must be fit, healthy, active and innovative at 65.

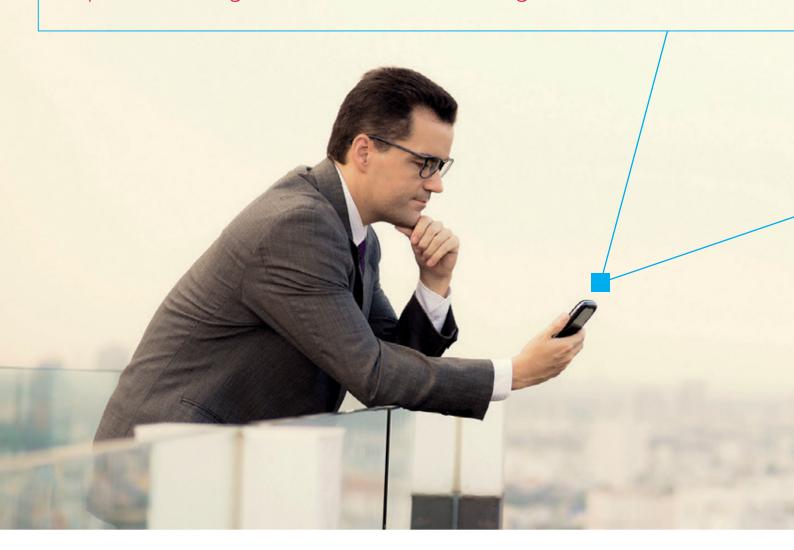
Conclusion

The compacting trends can hardly be stopped; on the contrary, they demand an optimisation of the work situation

(work design, adequate stresses) and of the organisation (corporate culture, processes and regulations) as well as strengthening people's resources. The dynamic interaction of all of these factors will allow us to achieve the employee with good health and high performance in the high-performance and healthy organisation, an employee who can easily overcome the compacting trends.



Highest precision on S Superfine dosing of adhesive in China for global communication



Everyday communications without smartphones has become impossible. But it may be surprising that the major process for assembling these devices is bonding. The adhesives used for this and the specific cartridges are supplied by Jowat Adhesives Co. Ltd. in Beijing. Dr Ralf Schelbach (Executive Manager) and Dr Xaver Karsunke (Business Development Manager) could convince their Chinese customers: Bonding on the most minute surfaces in smallest adhesive dosages is best carried out by Jowat adhesives in combination with the appropriate application technology.

Editor: Dr Karsunke, how did it happen: A customer calls,

introduces himself as a manufacturer of eletronic devices, and requests a supply of many, many cartridges of Jowat adhesives?

Karsunke: By now, this is reality. Before this, a Chinese distribution partner had contacted us because the local market for manufacturers of smartphones respectively for "electronic manufacturing" grew with immense speed and this trend is continuing. The International Data Corporation (IDC) is predicting an export rate for China in 2014 of around 450 million smartphones. In 2013, sales figures already reached 360 million. This equals a rate of growth of almost 25 percent. The potential is extraordinary. And the

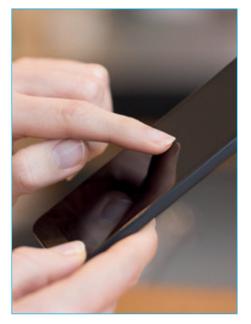
mallest surfaces

The International Data Corporation (IDC) is predicting an export rate for China in 2014 of around 450 million smartphones. In 2013, sales figures already reached 360 million.

assembly of all these devices requires adhesives.

Editor: And what exactly is bonded on a smartphone with Jowat adhesives?

Karsunke: First of all the display. Our adhesive is applied here onto a very small surface by a specialized application system which works like a syringe with a superfine dosage.



Editor: The display is an essential component of a smartphone. It is perceived by the user as combination of design and function. What challenge does this represent for an adhesive?

Karsunke: The end user has high demands on the workmanship of a mobile phone. This represents durability and stability of the device. Since the display is what the user has in view first and all the time, it has to be made to perfection. The manufacture is therefore subject to the most stringent quality criteria. Optoelectronic error detection systems immediately sort out units with minute non-compliances. Bonding flaws must be corrected manually, already in the manufacture, so that the usually expensive display will not end up as waste. A very crucial property of our adhesive is: the long open time during which the adequate green strength is maintained.

Editor: Is this how we can imagine the process: An error detection system spots a display which is not applied correctly and sorts it out. A staff

member corrects the error, and the mobile phone then goes back on the production line?

Karsunke: Yes, this correction possibility for flawed components was a major criterion for selecting the Jowat hot melt adhesive. It provides the required green strength with the necessary open time for possible corrections. Apart from this, the low viscosity of this hot melt allows processing at relatively low temperatures, resulting in a limited stress on the materials used.

Editor: Viscosity is a measure of the resistance of an adhesive to deformation by shear or tensile stress. The higher this property, the higher the viscosity. Why was this product quality important?

Karsunke: Before using our Jowatherm-Reaktant® adhesive, the manufacturer was working with a two-component system. These two-component systems are liquid at room temperature (low viscosity) and can

"The Jowat application engineers operate in a well-structured global network and close interchange with R&D. We exchange informations across all industries and search for parallels."



not be applied as fast and as accurately as a hot melt system which exhibits a substantially higher viscosity. Since the Jowatherm-Reaktant® has a low viscosity for a hot melt and in combination with an open time of approximately one minute, it is suitable for high-speed production, but also permits the manual corrections mentioned (long open time). After complete curing, a very high bond strength is reached, typical for reactive hot melt adhesives. This means that this hot melt adhesive reacts with humidity to form a bond of superior strength.

We also fill the adhesive into small cartridges, an amount exactly tailored for the adhesive application systems used in the manufacture of mobile phones.

Editor: Similar highly specialised adhesives must surely be used in other areas. Where for example?

Karsunke: As assembly adhesive, this product can also be imagined for automotive interiors, for medical equipment and in the electronics industry, for example in the assembly of speaker boxes, since this adhesive exhibits superior adhesion to many different plastics, glass and aluminium.

Editor: "Small adhesive from a cartridge which is heated and then applied by a syringe onto many minute surfaces in the course of a fast pro-

duction process, finely dosed and with superior accuracy", this was the customer inquiry. How is this kind of inquiry handled at Jowat, how fast can resources be pooled to offer innovative adhesive solutions to customers in the shortest possible time?

Karsunke: The technical applications support provided by Jowat forms a tight global network, cooperating closely with R&D. We exchange information across all departments and search for parallels. An adhesive for the assembly of smartphones was found in no time due to the extensive Jowat product portfolio. The challenge consisted in filling it into small cartridges.

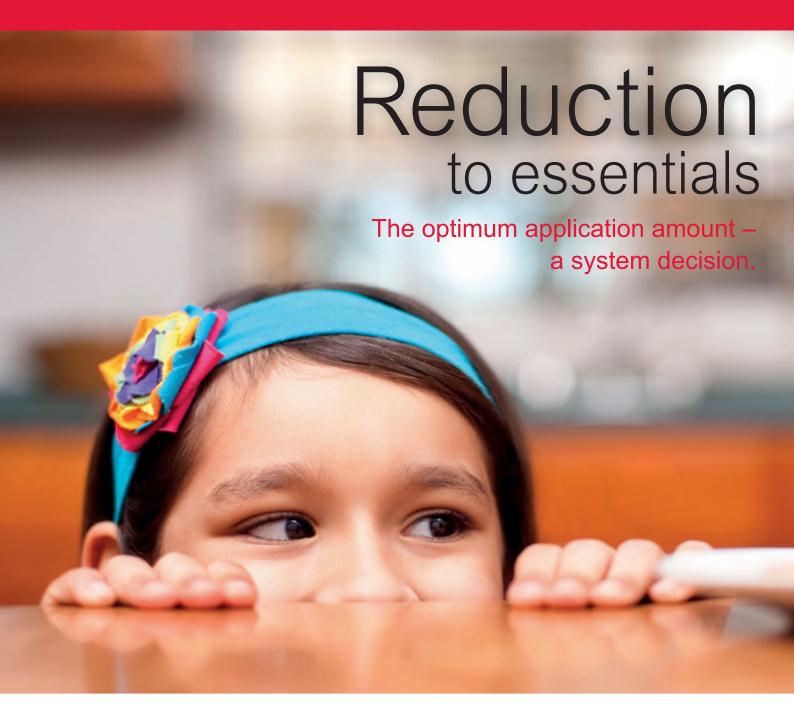
Our production managers are all the time in contact around the globe; they came up with a suitable filling technology in a very short time. After four months, in coordination with the manufacturer of the application technology, the entire bonding system went on line at the customer.

Editor: Innovative products, globally crosslinked competence in support, development and manufacture. This is a good example for the innovative power of a medium-sized company with close customer relationships. Dr Karsunke, thank you very much for the interesting insights.

Interview partner



Wood | Furniture | Construction Industry



The selection of an adhesive and of the application amount are both crucial for a perfect end product. This is why various criteria have to be considered when planning a production: What are the defined quality criteria for the end product? Which adhesive system is appropriate for this? What are the technical conditions in the producing company that warrant a smooth and efficient production process during manufacture? Is the processing of the

adhesive subject to legal regulations?

One of the major factors to determine a defined quality of the end product is the adhesive application amount. If it is insufficient, this will be at the expense of quality, and an excessive amount applied in the wrong spot leads to the same result. The factor searched for in this complex interplay is always the optimum application amount under economic and quality considerations.

Dependent on external factors: adhesives for surface finishing

In all bonding processes, the optimum application amount frequently depends also on the surface structure. To achieve a perfect bond, the surface conditions of the substrates must be taken into account. Modern adhesive systems are in this context clearly selective, often even specific: When the interplay is perfect, they are very

Utilising adhesives with responsibility for marine applications means: actively supporting fire protection



forgiving of surfaces which are not ideal, maintain a solid connection of subtrates in cases where the bondable surface seems inadequate, and act as efficient fillers when things get uneven. Each application has its individual requirements.

The visual and tactile quality of decor surfaces for instance depends on many factors: first of all on the quality of the bonding partners, which are the panels and decor materials. Also on the kind of adhesive, the application amount, and on the production technology. If any one of these factors is now modified, the parameters of all other settings throughout the system may also have to be reset.

While one focus over the past years was a reduction of adhesive grammage in order to lower manufacturing costs

and also to increase product quality, the panels during the same time became rougher and the decor materials became thinner, in the interest of maintaining a competitive edge on the market. The demands on the adhesive increased. The expectations: levelling uneven panel surfaces with low application amounts, no penetration of the adhesive of the decor material, and superior hardness. At the same time, adhesives must never represent a bottleneck in the production cycles. The high initial strength, achieved of the specialised adhesives for surface coating, ensures immediate downline processing stream.

This means that quite frequently in the sector of surface coating, the quality of the end product – or to put it differently, the market segment – indirectly also

defines the application amount of the adhesive.

Subject to legal concerns: Only the correct amount of adhesive ensures fire protection

The application amounts utilised in products for interior building purposes are often controlled by legal standards. This applies for instance to component which must meet high fire protection levels. The completion of industrial, administrative or public buildings (train stations, airports, shopping centres), interior finishing of ships, vehicles for road and rail transport – in all of these cases, compliance with fire protection guidelines is a must, and the adequate adhesive application amount is one of the essential factors. After all, if the



actual application amount used does not match the permitted or specified amount, the liability in case of fire damage may be voided.

When using adhesive systems and sealing compounds, all those involved in the entire chain of construction should ensure that all bonding materials are certified. Suppliers need to be checked for compliance. Data sheets that are forwarded with the product by certified suppliers indicate the exact guidelines and the correct processing and dosage of the adhesives for the respective utilisation. Very stringent standards are set by the organisations for seagoing ve-ssels. The International Maritime Organization

(IMO) defines the standards which the professional organisations for shipowners have to comply with by furnishing proof. Adhesive manufacturers undergo certification audits, the adhesive processor then in turn must comply with the application amounts and processing instructions of the technical data sheets. These standards set the fire load characteristics for the adhesive and the specified levels. They must always be reached and may not differ when used for marine applications.

Adhesives have a significant impact on the fire load, and can actively promote flame containment by utilising special additives. This is a responsible handling of the legal regulations.





The application amount is an important factor for success: quality, costs, legal and technical aspects are major considerations.

Determined by the purpose: The bondline executing a function

A bondline makes sense when it offers additional functions: not only as expansion joint, as joint for the planks of a ship deck, or as decor in an innovative mix of laminate panels, but in all cases where sealing and insulation is required. In connection with the thickness of the bondline, the central questions comes up again: Which application amount will most efficiently match the scheduled end

product quality? A "zero bondline" may be visually appealing, but does it ensure adequate prevention of moisture damage for components used in kitchen, bathroom or laboratory?

Conclusion

The system of bonding is an integral component of all dimensions of market requirements, of production technology, of legal aspects, and of the investment decisions of the processing company. If adhesives and their processing

parameters are adapted professionally to the targets of production, this may lead to competitive advantages that contribute extensively to the long-term success of a company. In this context, the adhesive application amount is an important factor for success: Quality, costs, legal and technical aspects play a major role. The various aspects need to be balanced against each other – a process which pays off all-round.

Author



Ingo Horsthemke
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It is not only a question of good taste, but also one of visual appeal: The content of a beverage package has for a long time ceased to be the only consideration for a customer when faced with a necessity to choose from the offers in the supermarket. The packaging is design object and guides the purchase impulse: Whether in striking colours, purist or cool – the packaging forms are as varied as the flavours of the content. Whether large containers or to-go format, the right beverage should be pretty to look at and at the same time be packaged to meet all functional consumption necessities. The all-time favourite for customers is still the bottle. Which settles the design credo for all other kinds of packaging "Shaped like a bottle".

Endless variety – a challenge for technology and industry

Unit sizes of beverage cartons vary widely, and today, they already start with a content of 0.080 litres. Each individual size requires its own matching production process. This is a challenge for the competence of engineers and business economists alike, to provide an economical answer to the dynamics of increasing line speeds, format and product switches, shorter cycles of designs and products. These

market fluctuations are also felt by the subsuppliers of the beverage industry like Jowat AG. After all, the increasing variety also affects the adhesives used in the production process. The best example for this is the trend towards miniaturisation of beverage packs with attached straws.

Each step must be perfect: straw application within millimetre tolerances

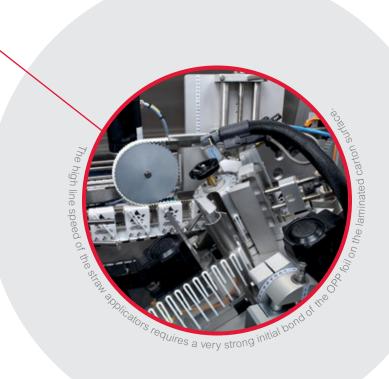
The trend comes from the far east. There, mini-packs are there already real lifestyle products: fast consumable content, easy to handle, and stylish.

From the technical side, the total surface of a rectangular pack of 0.080 litre is 42 x 33.72 cm, which means the straw has to be attached to only 30 cm² of the surface. The base of the "brik" amounts to only 14 cm². Each second, modern adhesive applicator systems attach 7 to 8 straws. Each and every one of these must be placed with total accuracy.

For the end consumer, this is a matter of course, but for the production technology, it is a real challenge. When the straw is attached to the package, numerous factors come together: high feed speeds, difficult ambient conditions, and very diverse material properties. An adhesive must bond the OPP foil in which the straw is wrapped to the



The consumer expects a perfect end product – to get there can be a real challenge for production technology.



laminated carton surface, with high initial strength. This ensures a fast and secure production process.

Constant rethinking necessary – production processes must always be adapted

Jowat AG is aware of the challenges

and pitfalls of these production processes. In cooperation with Tetra Pak, the requirements concerning a maximum permissible waste rate of lost straws were clearly tightened, leading to an overall process optimisation. In a first analysis of the process, it was found that the Jowat adhesives provide the required initial strength, but the lost

straws were not adequately wetted by the adhesive. Although the adhesive was not the root cause of the problem, Jowat application engineers joined an interdisciplinary improvement team, working to find an adequate solution. A detailed analysis indicated the root cause for the reject rate: it was found that the positioning of the straws on the





All depends on the pressure point: Jowat Application Engineers determined the causes for the failure rate in straw attaching by using cross-industry methods.

glue dots of the brik surface was not always accurate (slip in the transport belt) and the wettability of the OPP foil wrapper was inadequate and exhibited high tolerances in the surface tension. These effects are typical for beverage filling operations. The problem is aggravated by a different slip effect of the beverage carton sizes on the line. Besides the size of the base surface area, varying materials (paperboard, metallised surfaces) and transport conditions in the line (belt lubricators ...). All these factors are challenges and require a permanent setting of the line to the correct pressure point for the straws. The enormous line speeds additionally make this system more susceptible to failure.

The solution: inverse straw bonding

A tried and proven principle from the adhesive application technology supplied the solution for optimum process design: "The best possible bond is (most often) achieved when the adhesive is applied to the more difficult bonding substrate." Up to now, the adhesive was applied onto the surface of the PE-coated beverage carton. To apply it to the OPP foil in which the straws are wrapped proved to be clearly more effective, since this foil has a much lower surface tension and is more difficult to wet. This realisation led to the method called inverse bonding. This process has the additional advantage of reducing the effect of package slip on the conveyor belt completely; the numbers of straws which fall off throughout the entire transport chain from manufacture to end customer is now tending towards zero.

The engineering answer implementing this new application process professionally is a special, very slim adhesive application nozzle, which can be integrated easily into the straw applicator.

Cooperative top solutions

Bonding is a system process. The readiness to cooperate, and compe-

tence in support and service, turn good components into powerful production systems. A powerful adhesive has to achieve good bonding results and processing characteristics, and the cooperation among customer and manufacturing team also has to match perfectly. This will allow the existing potential for rationalisation in the engineering technology to be fully exploited, in order to stay compatible in the race of ever-increasing market demands.

Info

Jowat-Toptherm® 256.05

PO hot melt adhesive with excellent adhesion to various substrates like OPP foil on high-speed straw applicators (Tetra Pak, Geyssel) at line speeds of up to 28,000 packs/hour.

Very high flexibility at low temperatures, neutral odour.

Open time: 3 - 5 s
Setting time: short
Density: 0,90 g/cm³

Colour: white, translucent

Softening

range: 110 °C Ring & Ball, ASTM 3461

Approved for food contact according to EU 10/2011 and FDA 175.105.

Author



Manuel Füstmann Product Manager Paper | Packaging Industry



New focus: Product Marketing and Application Engineering

A realignment within the Jowat organisation creates transparent and efficient structures to be even closer to the customer

Starting this year, Jowat AG realigned its organisational structures to better meet the requirements of the global markets. The corporate growth required even more flexible, but also more clearly defined structures. In consequence, the business units "Industrial Division" and "Technical Support & Service (TSS)" underwent substantial changes. Along with these activities, the new business unit "Product Marketing" was established. Nevertheless the top priority for Jowat remains unchanged: being close to the customer. What are the advantages of these changes for Jowat customers, which strategies is Jowat following —

answers to these questions are provided by Armin Erb, Vice President of Jowat AG and Director of the department TSS, and Timm Schulze, Director of the newly created business unit Product Marketing.

Editor: Mr Erb, you are one of Jowat's bedrocks. Would you give us a rough idea of what is new about the Jowat organisation?

Erb: First of all, totally new is that Jowat AG has created an additional business unit – the Product Marketing.



New, but not altogether new, is the renewed pooling of our technical appli-cations competence in TSS. Associated with this, and reflected internally and externally, are clear structures, responsibilities and competencies. Our customers can now take advantage of this pooling effect by utilising our even more comprehensive technical service and support competence, especially under consideration of the cross-industry know-how.

Editor: Mr Schulze, you are the new Director of the department Product Marketing. What is your job?

Schulze: Together with my team, I am focusing on new market opportunities in the context of the Innovation Management of Jowat. We search for cross-industry potentials to continuosly supply our customers with innovative adhesive systems. We also provide highly competent consulting services with close customer contact.

Editor: Mr Schulze, what became of the Industrial Divisions?

Schulze: The Industrial Divisions of Jowat have been absorbed into the two areas Product Marketing and TSS. The project engineers so far associated with TSS, and the application engineers from the Industrial Divisions, are now working in the same organisational unit and the same processes.

Editor: Mr Erb, that's something for which I want some more detail: How should Jowat customers imagine the widened responsibilities of TSS including the technical application support, and how exactly will the processor of Jowat adhesives profit from this?

Erb: The merger and expansion, especially in the area application technology, will give us more capacities in the future, both for technical consulting services of our customers, and also for the internal handling of technical matters, for instance for the

qualifying process of products before market introduction. The entire TSS team will - as before - support National and International Sales. This covers the technical handling of complaints, the packaging management, our technical test laboratory, and the technical documentations. In addition to the further qualification of our own staff, we also offer this service to our customers in the context of presentations and training. Below the line, our customers will profit from improved accessibility, additional support capacities, and an optimised technical consulting. We are able to supply a fast, competent and absolutely comprehensive and coordinated service.

Editor: Mr Schulze, "fast, competent and absolutely comprehensive services" that sounds good. But what does the establishment of Product Marketing mean? How does this create added value for customers?

Schulze: Product Marketing is not a new topic for Jowat; up to the end



of the past year, it was a job for the Industrial Divisions as well as for the technical applications department. The processes of market surveying, the product portfolio strategy, and the product innovation, have now been compiled into one individual business unit "Product Marketing". Due to the reintegration of the technical applications support in TSS, and the creation of Product Marketing, we have provided a clear focus for both areas of responsibility. Product Marketing absorbs the impulses from the international markets, from our customers, from the Jowat subsidiaries, distribution partners, suppliers, to convert these by extensive communication and interchange with the R&D departments into tasks for the development of products and business. We apply the results to the customer

world, and support our sales and applications technology with information concerning product advantages and added value for local customer consulting. These processes will allow our customers in the future to take even better advantage of innovative adhesive opportunities, and they may be sure that they can continue to draw profits from the rationalisation potential which is provided by the technology of bonding for their companies.

Editor: Mr Erb, how does the change in organisational structure fit into the long-term corporate strategy of Jowat?

Erb: Our strategy remains as before: Continuation of customer relations and high-quality service and support around powerful adhesive products. We see ourselves as an innovative

partner for our customers in all aspects of bonding. We are growing internationally and consistently organically both and together with our customers. This together characteristics are what has distinguished us for many years now as medium-sized enterprise from most other competing suppliers on the market. At the same time, we remain flexible and adapt quickly to new market situations while actively searching for new opportunities.

Editor: Mr Erb, Mr Schulze, thank you very much.



Interview partners

Timm Schulze
Director Product Marketing

Armin Erb
Dipl.-Ing. (FH), Director
Technical Support & Service



A constant success

Armin Erb heads the TSS department for almost 20 years

With his almost 35 years as part of the company, Armin Erb, Vice President of Jowat AG, is almost one of the bedrocks of the Jowat world. Research & Development, production, sales, application service and consulting – Mexico, the USA, Germany – with his background as graduate engineer in chemistry, Armin Erb collected a broad range of competence across many industries that he can now draw on for valuable experience and information.

Since 1995, Armin Erb is acting as Director for the Department "Technical Support & Service (TSS)". He is, together with his team, the service contact both internally and for customers and partners. His topics: application technology, claims management, packaging management, technical information management, the technical test laboratory, and training sessions.



New positions

New Regional German Sales team

Since autumn 2013, the Sales department Germany is represented in the field by two new Regional German Sales Managers. Torsten Sielemann as Regional Manager for Northern Germany, and Jochen Wehrstein for the Southern region. These two Sales Managers formerly acted as technical sales consultants for national Sales, and are now cooperating as a team in this new task as Regional Managers.

Their main job: Optimum communication as a team, and support of the regional representatives locally in all practical matters. In close coordination with the Sales Director in Detmold, they develop strategies for new customers, products, and applications. The agreed target for both gentlemen: An even stronger focus on the customer, and increased efficiency for the sales success of Jowat.



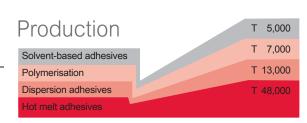
Worldwide Mission

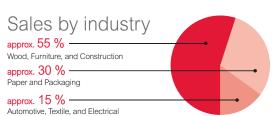
Communication

For Tobias Aland (35), Corporate Design, events and media are bywords. He is well-versed in all Jowat matters. Since 2007 already, he is acting as Jowat in-house contact for all aspects of Sales Promotion. From the Detmold location, he coordinates the participation in international trade shows, and signs responsible for the creation of global print and online media. Tobias Aland, who has a penchant for appealing desing and foreign languages, understands himself to be a communicator in the Jowat world: He supports colleagues from the most diverse areas in all countries, and acts as interface for representatives from the media.

Jowat in figures

Sales 240 Mill. € Employees 900





Jowat Progress Spring cleaning for the made

Spring cleaning for the magazine

For its fourth birthday, we are presenting our customer magazine in a new outfit. More up-to-date, more emotional and to some extent multimedial, this is how this first new edition of "Jowat Progress" is now designed.

Apart from the changes in appearance, a lot has also happened "underneath the skin" For instance, we now have more scope for our respective editorial topic and the specific topics concering Jowat adhesives. Under the headline "Global" we consistently report on news around the brand Jowat, and "Inside" will provide you with captivating insights into the company and the staff around the globe. Additionally, you may gain more information by weblink or QR code. And if there

Info

Let's have your feedback on this new magazin design, with your praise, criticism, or wishes. Win an iPad Air or one of five Amazon vouchers valued at 25 Euros.

We welcome your participation in our customer questionnaire under http://survey.jowat.com

is not enough magazine space for a subject, you will be able to get more detailed supplementary information on our website.



Jowat Outside

Trade Fairs and Events

Around the globe: The diversity of the different industries is reflected by Jowat's participation in international trade shows in 2014: The Expo Pack in Mexico City, Mexico, the Drema in Poznan, Poland, the SICAM Pordenone, Italy, and the IWF in Atlanta, USA.

More fair dates under www.jowat.de



IWF, Atlanta, Georgia USA



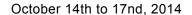
August 20th to 23nd, 2014

Drema, PoznanPoland



August Zoth to Zoha, Zoha







PACK EXPO International, Chicago, Illinois

September 16th to 19nd, 2014

November 2nd to 5th, 2014



Increasing demands require strengthened resources!

Jowat creates future. In the Technology Network: Intelligent Technical Systems OstWestfalenLippe . Germany

About

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