Last year marked a turning point for our injection moulding division. As never before, the requirements of big automotive suppliers collided with the situation in the division. Our components quite often ensure elementary and safety-relevant functions under the bonnet and, as a consequence, the requirements placed on ENSINGER have risen in the light of increasing quality problems of our customers. ENSINGER was given the status “on hold” (virtually “under heightened observation”) during a recall action and, at the same time, we were confronted with the decision whether to continue supplying the automotive sector long term under different auspices or to give it up altogether.

Under the circumstances we decided to fundamentally adapt our procedures to the needs of the automotive industry and to completely turn our management system inside out. At the centre were the elements – Product development – Quality system – Planning and decision fundamentals (management system)

With the help of an external company, the procedures were screened and adjusted in parallel to work on specific jobs which were then newly documented. Product development is now divided into six main phases and numerous single steps, which are extensively documented. Essential decisions and phase transitions are released internally or in agreement with customers. The requirements of the application are defined in performance specifications. Functional and manufacturing risks are analysed in advance and preventive action is specified. Special attention is paid to the controlled changeover of prototypes or small volumes to mass production, as well as to stable production conditions set up according to statistical criteria.

At the centre of quality management the will and the ability of all concerned to scrutinise existing processes and procedures on the basis of operating figures and to strive to always continuously improve on the level reached (KVP). Employees refer back to working methods in working groups in order to “crack” difficult problems and to solve them systematically and on a sustained basis.

At defined intervals the management team meets in subject-related meetings and discusses the next steps on the basis of key-data and models. We still have a long way to go before the new practices become a matter of course and the standards and procedures will show an advantage, also for all those items “with a previous history”. Now and again there are setbacks. But the sum of what is achieved is increasing and thus the way we think changes too. Processes do not have to stay as they always were. Employees look closely and point things out. The store of topics fills itself with fresh challenges anew, the presentation boards with tips and suggestions and the machines with trial orders. The results achieved are published and assigned to other problems. Many small solutions slowly produce an extensive effect and some of the key-data begins pointing in the right direction.

My compliments and thanks go to the colleagues in the division – management and team – who have actively driven the improvements forward or, as those affected, have openly and constructively cooperated. The burden in terms of time is huge, but the successes and the joy of something new allows us time and again to forget all our troubles. The greatest motivation for all of us is, of course, the fact that we have eradicated the “on hold” status and have no cause to complain about underutilisation and lack of enquiries since we are now qualified or frequently A-suppliers with our customers.

Klaus Eisinger, Managing Director

Project “Delta Null”

ENSINGER Injection Moulding Division – qualified partner to the automotive industry

In this Issue:

- Project “Delta Null”
- ENSINGER Injection Moulding Division – qualified partner to the automotive industry
- New materials for medical applications
- TECAMAX SRP shapes made from raw material PrimospreiTm
- ENSINGER customers, there will be
- Exclusivity: TECAMAX SRP shapes made from raw material PrimospreiTm
- Regarding the specific strength, i.e. strength in relation to low weight, this material exceeds most metals and alloys.
- Maximum temperature range: TECAMAX SRP maintains its properties over temperatures ranging from –270 °C to 150 °C.
- Chemical resistance: TECAMAX SRP remains stable towards acids, alkaline solutions and solvents, even at higher temperatures.
- Biocompatibility: TECAMAX SRP is biocompatible and has USP VI approval. The material dissolves without releasing toxic substances and without outgassing.
- TECAMAX SRP passed smoke and toxicity requirements according to ABD 0031 as well as a test concerning outgassing behaviour according to ECSS Q-70-02.
Dear Readers,

Ever since it was found- ed, ENSINGER has placed particular value on offering a wide range of high-performance plastics of the best qua- lity. In this way we were able to produce with our customers semi- finished goods made of fibre-reinforced thermo- plastics at a time when these were still basically developmental pro- ducts and the commercial quantities were correspondingly small. These investments in future technologies were highly valued by customers and are an important reason for our growth in recent decades. Ever more important is also the intensive col- laboration with raw material manu- facturers and hence we are pleased to manufacture exclusively for such well-known raw material producers, such as GE, Plastics and Solvay, engineering materials – as you can in- fer from the articles mentioned on the title page.

Just as the success of our products has increased, so have the require- ments of customers. These days, not only the know-how about excellent materials is important, but every indus- try demands customised solutions. Our customers operate globally in order to be competitive. For that rea- son, we also provide our know-how locally regardless of where it is need- ed: Our global group of companies with 40 production and sales subsidi- anes provides the right expertise for all industries on the spot. Internet- working ensures that knowledge is transferred quickly, because times change today faster than ever before. Change is only possible with active employees who drive these changes forward – and for this I wish to sin- cerely thank all of my colleagues. I as- sure our customers that we will sup- port them in their developments in Every possible way. Their challenges will encourage us to achieve new all- time highs.

Today we are trying to help industries more specifically. The medical and semi-conductor industries and spe- cialized mechanical engineering serve as examples. And only just recently, we are no longer just active all around the world, but way beyond that: Page 5 of this issue is dedicated to the aerospace industry.

What has also changed in the last few years is that people are more conscious of using natural resources: Fossil energy is once again at the top of the agenda of politicians and com- panies. ENSINGER, insulbar® and Thermix® which can contribute considerably to saving energy in buildings. Read more about this in the reports from our Building Products Division further down on this page. We believe that this mar- ket will continue to grow worldwide, especially in the USA. For this reason, we have made significant invest- ments in our sites in Greinloch, Penn- sylvania, and in Bavaria at Cham. One final remark about our materials: insulbar® building products are pro- duced from fibre-reinforced poly- amide 66 – and interestingly enough it is these reinforced thermoplastics which we mentioned above which were research projects at the time and which today help to conserve the valuable resource energy in a commercial way.

I think you will agree that is an ex- tremely good change for the positive.

Dr. Roland Reber

P.S.: There have also been some changes at management level. Rick Philips, member of the Executive Committee, has accepted a new challenge and has left ENSINGER. For more than two decades he was the driving force behind ENSINGER USA, which made it what it is today: From a small cell in the East of the U.S.A. has emerged a company group with several hundred employ- ees. Rick will nevertheless remain closely associated with the company: As the owner and managing director of Plasfibal he will be marketing our products in Canada. Furthermore, we will also be able to continue to profit from his experience as a member of the ENSINGER Board. We wish him all the very best for the future!

Editorial

Only for customers

The insulbar® website was expanded- ed with a login area for customers. Here, they can deposit and ex- change coded individual data.

Requests to:

insulbar@ensinger-online.com

insulbar®
standard programme

Customers and those who are inter- ested find the range of all insulbar® products that can be produced with- out additional tooling costs in the updated 10 language over- view 1-2007.

Download from

www.insulbar.com or

www.insulbar.de or

e-mail your request to

insulbar@ensinger-online.com.

Building Products Division

BAU 2007 trade fair in Munich

A successful start to the year for ENSINGER building products

(Wey) According to official reports from the Messe (trade fair) Mün- chen, BAU 2007 achieved a new record for visitors. More than 209,000 visitors attended the world’s largest specialist trade fair for building and construction materials held over six days be- tween 15th – 20th January. For the first time in more than the 40-year history of BAU, the record of 200,000 visitors was exceeded.

The attending public was never more international than this time: more than 36,000 qualified visitors came from abroad. Visitors attend- ed from 143 countries – that too is a record number.

The ENSINGER booth, at which the Building Products Division present- ed its two product lines insulbar® + Thermix®, was also hit by the boom at the trade fair. On the one hand, visitors were able to receive advice about the numerous solu- tions presented on the ENSINGER standard systems using insulbar® insulating profiles. An innovative possibility was presented with insulbar® extrusion in- troducing the possibility of providing profiles for pre- trial purposes at short notice. These products are machined from semi- finished goods using Rapid Prototyp- ing in the original plastic material or extruded identically to volume production using prototype tools.

The ENSINGER stand also presented how the edge bond of insulating glass can be best insulated using Thermix TX.N spacers as well as the simple processing of the products, which was demonstrated with a small bending machine. Trade fair it was possible to draw a positive balance: Numerous excellent discussions and contacts shaped the course of the fair, which also allows us to make an optimistic view of the current year.

Thermix® TX.N – the new spacer generation

Thermix® TX.N is a further top product from ENSINGER in the fast growing “warm edge” market. For users of glazing for windows and fa- cades, insulating glass edge lamina- tions with Thermix® TX.N are a sensi- ble and efficient investment in energy saving and a gain in comfort. More than 10 years of experience have been put into the development, production and use of spacers in the new Thermix® TX.N product series. Numerous test series with re- newed partners in the glass industry, as well as strict testing by neutral institutes, preceded the product launch at the end of 2005. The warm edge spacers have already passed various national regulations such as the British BFCR rating (Airing for windows with Thermix® TX.N) and the Avis Technique in France, for example.

Using a combination of stainless steel with high-insulating plastic, the respective material properties are utilised optimally. This leads to very good insulating values. Thermix® TX.N spacers are suitable for customised insulating glazing. A considerable energy saving and a clear improvement in room climate can be achieved with Thermix® TX.N in an economical and intelli- gent manner. Thermix® TX.N guar- antees best possible thermo-tech- nical values. Thermix® TX.N spacers are available in the standard colours light grey and black. The product range of Thermix® TX.N spacers comprises of the profile widths 8, 10, 12, 14, 16, 18 and 20 mm.

The product lines

insulbar® – Metal windows, doors and facades perfectly insulated

[Image 21x241 to 118x314]
High possible reliability of all components

ENSINGER engineering plastics in satellite antennas

The eight page information leaflet presents in graphical form and in technical tables the fire protection properties of plastics, as well as excellent electrical insulation properties. It has a high degree of purity, has a low elongation ratio in vacuum and is inherently flame resistant.

TECAPEEK is a partially crystalline plastic with high strength, rigidity and hardness. The continuous operating temperature is up to 260 °C. TECAPEEK is resistant to many types of hydraulic oil and chemicals, also when used at high temperatures and in the low-temperature range. The plastic has excellent dimensional stability and very good sliding properties with special types, as well as excellent electrical insulation properties. It has a high degree of purity, has a low elongation ratio in vacuum and is inherently flame resistant.

The materials

Vespel® has a continuous operating temperature of 300 °C and is also optimally suited for use in the cryogenic range. The material exhibits high strength, stability and creep resistance. Vespel® is distinguished by good chemical resistance and excellent sliding properties with special types, as well as excellent electrical insulation properties. It has a high degree of purity, has a low elongation ratio in vacuum and is inherently flame resistant.

TECAPEEK and Vespel®

The S-band satellite antenna S2023 and the GPS-L1 antenna L1575 are especially designed for use on "LEO" (low earth orbit) satellites. With the help of engineering plastics from ENSINGER, it is possible these days to produce compact, light and nevertheless very robust antennas for use in space. Various parts of these antennas are made of high performance plastics from ENSINGER. The instruments and systems of STT-SystemTechnik GmbH are designed for extreme ambient conditions, such as temperature, vibration, shock, high vacuum and cosmic rays.

Satellite antennas with TECAPEEK and Vespel®

The new brochure “High-performance plastics for use in aerospace technology” at AIRTEC. In this, ENSINGER especially emphasizes the requirements in aerospace technology and presents those polymer materials which are suitable and have been tested and approved for use in this highly exciting area.

New brochure

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ENSINGER at AIRTEC

High performance plastics for use in aerospace technology

The reader can learn more about what plastics are capable of doing in aerospace technology in the brochure, which ENSINGER has recently published.

Custom Cast Division

Extension of office and social room facilities

(IH) After new employees joined the Moulding Division in Cham recently, the facilities of the sales division had become increasingly more crowded. The logical consequence was to expand and extend to make new, bright offices and social rooms. A clearly larger office area, a new lounge as well as new shower and modern washroom facilities are now available for approximately 36 employees. At the same time, the foreman’s office was extended and modernised. Many thanks to all employees who ensured that the rebuilding and move went smoothly and that the day-to-day activities were not affected.

Building also took place in the outside areas: Since the amount of semi-finished goods and finished parts from moulding production have significantly increased, the previous halls were no longer adequate to use for intermediate warehousing. So that plastic parts are not exposed to the elements in the yard, ENSINGER has constructed a roofed open warehouse with shelving. The entire construction activities were completed in December of last year.

Finished Parts Division

Hall refurbishment in the Finished Parts Division

(IH) More recently, about 30 in¬dustrial employees of the Cham machining division are able to carry out their work in new, bright and friendly working surroundings – the refurbishment of the halls in the finished parts division has now been completed.

As the production area no longer satisfied the requirements for modern manufacture, the company started the first partial refurbish¬ment of the milling shop in the year 2004. However, the areas for turning and milling were not to be visually separated from one another for much longer. Thus, the partial refurbish¬ment of the turning shop followed – and after completion of the renewal work, both production areas present a uniform picture. The new placement of the machines has led to greater room optimisation and to an improved arrangement, from which all have profited.

In order to ensure continuation of production, refurbishment took place in individual steps. Detailed planning of the single activities was the basis for success.

Punctually after the Christmas and New Year’s break, production started up again at the beginning of January 2007 – also the final smaller completion jobs did not influence the workflow.

During the refurbishment work, all employees in the division’s area made an excellent contribution to maintaining the narrow timeframe and keeping production going by the use of flexible working hours. A special word of thanks goes to the shift managers of both production areas, as well as to the technical service department of the division.
Wilfried Ersinger is well-known for his trend-setting developments in the area of plastics technology. In order to motivate young scientists to grapple more with technological issues involving plastics, the Wilfried Ensinger foundation already introduced the Wilfried Ensinger Prize four years ago. Since then, prizes have been awarded annually for final year project papers and dissertations. From this year, outstanding results of apprentices and BA students, who have completed their professional training with good and very good results, can now also be awarded the Wilfried Ensinger prize.

At a small ceremony held at ENSINGER, the process mechanic Markus Killinger (2nd from left) and the graduate engineer (BA) Corina Stock (middle) were honoured for their good overall results and awarded the Wilfried Ensinger prize. Besides receiving a certificate, both awardees were also given a monetary prize. At the end of last year, the former apprentice Ralf G. with his team (Cham, Christoph Paul), was also distinguished for completing his course with excellence and the grade 1.0. The young man now works as a machining mechanic for the company.

Professional training is important to ENSINGER. With the extension of the prize to these new areas, we would also like to motivate future apprentices and graduates to give their best. Because they are our qualified specialists of tomorrow, "is the view according to the company founder and chairman of the foundation, Wilfried Ensinger.

On January 10, Gary Davies from TRIG Engineering received a phone call from Rich Lock, buyer at UK helicopter producer Westland, requesting his assistance with an "urgent job with a sensitive nature." It seemed to be a very mysterious top secret affair.

For the following day, TRIG was asked to prepare a "table top display" at Westland for a VVVIP, whose name was confidential for security reasons. Working against the clock, with great improvisation skills and excitement, finally, everything was perfect. TRIG had a very impressive display and the whole crew was now looking forward to the big "Mr. X." – who even arrived on time: It was Tony Blair, the PM himself!

He made a tour around the company to see the helicopter production line, then he spoke to employees and trainees, before he had to end his visit after shaking hands and posing for some memorable photographs.

Wilfried Ersinger prize now also for apprentices and BA students

Frank Gross visits ENSINGER do Brasil

In November, Frank Gross from Semi-Finished Products Extrusion undertook a 3-week business trip to visit ENSINGER do Brasil in Sao Leopoldo. He was accompanied for three days by Franz Holzberger. The reason for the journey was to provide support to our Brazilian colleagues in the semi-finished products extrusion division. After staff changes had taken place at ENSINGER do Brasil, it was necessary to ensure that the introduced and trained procedures still functioned smoothly. The two supported the Brazilian team with their combined know-how. Theoretical estimates were made as to what extent one could produce optimally with the available equipment and where optimisation is necessary. This was a diversified and instructive time for Frank Gross. He was particularly impressed by the extreme hospitality and sincerity of the Brazilianans. He greatly appreciated how openly he was accepted by colleagues and the pleasant collaboration with them. "The Brazilians were open to everything and also promptly put many of our suggested improvements into practice", according to Frank Gross. He also noticed with what motivation and joy the colleagues carried out their work. And what impressed the two in particular in their free time? – "The exceptional beauty of the country, the typical zest for life of the Brazilians and – how could it be otherwise – the incredibly mouth-watering and unique cuisine, and – how could it be otherwise – the incredibly mouth-watering and unique cuisine, and all in all, a very successful trip, including a five-star motel and the whole crew was also very satisfied with the trip."

Sales training at ENSINGER Polska

Employees of ENSINGER Polska took part in a training course to optimise selling techniques and sales strategies at the beginning of November. The team was divided into two groups, internal sales and field representatives, in order to address specific issues in a more specific manner. The dedication of the trainees has been emphasised – they communicated an optimum of know-how in two days and also trained using many practical exercises. The practical exercises strongly motivated all participants to develop new attractive selling techniques. In this way, participants also learned how to satisfy various customer expectations in specific situations even better. This was also the whole purpose of the organised training. The declared objective of ENSINGER Polska still remains to continuously revise and, if applicable, to correct previous customer service practices, continuously adapt selling techniques and presentations to match different customer personalities and situations and to better come to terms with “difficult” customers.

Last but not least, integration as a team is decisive for the satisfaction and motivation of employees. The training, which was held outside the normal working surroundings in Karpack in the Herz Mountains, was also in this respect a complete success. The hospitality and very personal service was praised very much, and after a full day there was still time for relaxation in the swimming pool, or to play skittles or billiards.

This very successful training the ENSINGER team see themselves in a better position to master the challenges of the dynamic development still ahead.

Cezary Michalczyn

The picture shows the distribution team at ENSINGER Polska, which learned within two training days a lot of new salesmanship.