



Global exchange – what ENSINGER knows ...

Transfer of knowledge and international collaboration is more important than ever

[DW] In the meantime, the continual growth of knowledge has become an indispensable commodity for the competitiveness of a company. It is thus all the more important to exchange this knowledge in international collaboration and make it available to everyone. ENSINGER has recognised this fact and started to collect and to channel global knowledge a few years ago. The objective was to create a network for the exchange of knowledge and communication – in this way, worldwide synergy potentials can be optimally utilized. Additional focus points were to develop conscious,

general thinking and to establish a culture of open communications. One of the first cross-company groups was the Technical Development Group, in which all new technical ideas were to be brought together. The group evaluated innovative application possibilities, processes and technologies and steered development projects. Since then, several further technical sub-groups have been formed, amongst others, the "Global Extrusion Group" (extrusion), the "Global Casting Group" (die casting) and the "Global Machining Group" (cutting operations), which we would like to

introduce in the current and in forthcoming editions of "impulse". Management staff from the production divisions meet together and form networks, in order to support each other in meetings and mutual projects, so as to profit from one another in this way. In the meantime, the groups have become established and work together according to the principle of "Best Practices": the members visit each other, define problems, discuss these and work out action plans. Possible solutions are compared and the best are selected. In the next step these solutions are developed

further together. In this way, knowledge is effectively linked and the employees achieve a mutual goal. In the meantime, this principle has proved to be very valuable. With it ENSINGER has both economic as well as cultural unity in view.

Global Extrusion Group has now been active for one year

Exactly one year ago, in June 2003, the Global Extrusion Group was founded from various division and subsidiary heads as well as technicians. The goal of this international working group is to evolve and set up projects for improving and standardising production processes by comparing product data and parameters.

"We can learn from each other, even if differences still remain. It is a valuable experience, not only for the company, but also for the individual employee – and in the end the customer profits too", according to ENSINGER General Manager Dr. Roland Reber. "There is a big potential within the company which lies in the exchange of knowledge and in the increased mutual support and collaboration of ENSINGER employees amongst themselves."

In this issue:

Page 2

- Editorial
- bauma 2004: Presentation of the casting products

Page 3

- Ski trip: Perfect weather, stunts on the slopes and spirits were high
- Silver IHK pin of honour for Heinz Lehmann
- Second closed-door conference of works council
- Anniversaries

Page 4

- Retirements: Karl-Martin Hess (Nufringen) and Alfred Heimerl (Cham)
- New employees
- Completion of training

Page 5

- Interview: Dieter Scharf
- ENSINGER business life

Page 6

- Thermoformable PPS sheets and foils
- And finally: Strange but true ...
- Cartoon

Questions to Franz Holzberger



basically extrudes the same products as ENSINGER, the plan was to compare available know-how and to then effectively use the best solutions in the new ENSINGER facilities. No one was available locally to support the new structuring process on a full-time basis and so they asked me. I accepted the challenge and moved with my whole family to New Jersey.

What did you discover – what was the state of development at ENSINGER Hyde?

The available technology was out of date and no longer functional. The building, for example, was ancient, had three levels and was poorly ventilated. There were no cranes available and it was not possible to create a reasonable layout of the existing machinery without making a big investment. The machines themselves were not only other makes than those we know in Germany, but they were also partly in very poor condition and there was little standardisation. I also discovered insecure employees who were not able to judge our company after the take-over and now did not know what was still to come – both as regards production as well as jobs.

How did you proceed?

First of all, we took stock of the entire equipment and classified it. Tools and machines and equipment were looked in detail, possible repairs were started and new equipment was ordered. We were able to dispose of many things which were no longer usable. We trained the personnel, sought contact and discussion with employees, praised initiative and criticized inappropriate behaviour. Altogether, operations were made considerably more productive, so

that it was possible to see a future. Finally, we recognized the commitment of the very flexible and performance-oriented employees and colleagues.

Furthermore, we fixed the division of production between ENSINGER Inc. in Washington and Hyde – according to the facilities available at the respective production sites.

Was it hard work?

In a business sense it was, of course, hard work for me and a very big challenge. But it was also difficult for my family, especially in the first half-year. Everybody had to acclimatize in their own way, while I was up to my ears in business matters. But then they slowly got used to the situation, made the first personal contacts and the language barrier was also surmounted.

How is global collaboration in the meantime? Was it important – looking at things in retrospect – that you were assigned there for such a long period?

Tom Ellendt continues the work we started together and global collaboration is now excellent – greater personal familiarity and human closeness promote understanding for mutual needs. It was possible to develop this through the long stay in the USA. We certainly have the advantage through such good contacts of being able to understand the other culture and its idiosyncrasies that much better, as e.g. production structures do differ fundamentally very much from one another.

In order to be sensitive to this fact, it was very important to be assigned there for such a long period.

ENSINGER production manager Franz Holzberger was in the USA from January 2002 to August 2003 as part of an international exchange. He contributed significantly to the new orientation of the American production locations, in particular that of ENSINGER Hyde in Grenloch, New Jersey. Holzberger's German experience was complemented by the American point of view. He was able to assist American colleagues and very strongly increase the efficiency at Hyde through close collaboration with Chris Ranallo, Tom Ellendt and other team colleagues. The cornerstone for the collaboration of the Global Extrusion Group was laid here, which was able to achieve several successes in the meantime.

*With which objectives did you go to the USA?
How did it come about?*

The assignment was to increase efficiency as quickly as possible at the Hyde company in Grenloch, New Jersey, which ENSINGER took over in 2001. As Hyde

TECAFORM AH MT is now available in twelve standard colours

[DW] ENSINGER has extended the colour range of TECAFORM AH MT (POM-C) to twelve different standard colours. The material is now available in natural, black, grey, yellow, red, rust, brown, tan, blue, green, light green and light blue. Other colours can be produced on demand. These special colours are preferably used in medical and food processing technology and in pharmaceuticals; since in such applications different colours can facilitate the selection of slightly different sizes or of different functions. Application examples are sizing trials for implants, instrument parts or handles, plugs, bearings, insulators, housings, metering dies and sealings.

A basic feature of TECAFORM AH MT is its good strength. The material is stiff, tough, has good sliding and friction properties and has very good electrical insulation.

It is resistant to multiple sterilisation and cleaning agents and to a number of solvents. TECAFORM AH MT can also be sterilised with ethylenoxide. When treated with vapor, the regularity of such action should be

taken into account. Brittleness and yellowing may be expected when in contact with radiation (e.g. gamma rays). However, when the surface is treated carefully, the material can be bonded and it can easily be machined and polished.

TECAFORM AH MT is available as rods 2438 mm long with the following diameters: 12, 7 mm, 25,4 mm, 38,1 mm, 50,8 mm, 63,5 mm, 76,2 mm, 101,6 mm.



Sizing trials for hip implants. For this application material has to be low-stress and non-warping. It also needs to be resistant to multiple sterilisation and cleaning agents. Different colours allow easy differentiation of sizes. TECAFORM AH MT was selected since this thermoplastic fully meets these requirements and is available in a large range of colours.

Editorial



Dear Readers,

We concluded our business year at the end of March and I am pleased to say that once again our Group has performed well during this period. The economic environment remained bleak and highly competitive and it could hardly be said that we have not grown without some internal friction and problems. But we have grown: opportunities were used and many ENSINGER employees have accomplished their work in an exemplary manner. For this I wish to express my particularly sincere thanks to all our associates. I attribute the progress we have made to the fact that today we are

pursuing a more systematic and concentrated product and applications development approach and are better able to convey what we do to our customers in many different markets. As a consequence of this, we were able to sell our niche and speciality products more successfully in the past year.

The role of creative development in this process is undisputed. But the significance of the sales and marketing function in this respect is often all too easily underestimated. Typical for this attitude are organisations, which leave product development to the development staff and the marketing of an innovation to sales and marketing in a clearly cut division of responsibilities.

It is not enough "just" to develop and offer good products and services: so-

phisticated products need trained and open-minded specialist salesmen, who are able to fathom out the potential of these products and to pass this on to customers. I would like to thank in this respect in particular our colleagues in sales and marketing. Many of them are fascinated by the possibilities offered by our speciality products and are prepared to undertake all kinds of efforts to find the right application for them. This requires perseverance and sometimes a good helping of idealism. But it just happens that our idealists in sales and marketing often find applications for products, which to date were unknown and provide important suggestions for the further development of the products – because they are able to listen properly to customers. In addition, an active exchange between sales

and marketing and development is required.

Regarding speciality products: You will also find information in this edition about niche products, which have increasingly found a ready market in recent years. I hope there will also be something inspiring and interesting for you.

I would like to wish all our employees and readers much success and happiness in the new ENSINGER business year and all the best.

Yours sincerely

Klaus Ensinger

bauma 2004: ENSINGER presents the casting products

Visitors came from as far as Dubai and Australia



General manager Klaus Ensinger was also at the fair for one day. Here shown with Martine Marquety from ENSINGER France.

[DW] The bauma 2004 trade fair took place from 29th March to 4th April in Munich. It exceeded all expectations with about 410,000 specialist visitors. As in previous years, this is an international meeting point for the

industry which draws visitors from all over the world with its attractive programme. More than 2,800 exhibitors presented their product innovations on seven exhibition days over an area of more than 500,000 square metres of exhibition floor space.

And as part of the happening: ENSINGER was represented by staff of the die casting division as well as other customer advisors. Colleagues from ENSINGER Japan, Italy and France were also available to speak to visitors.

This was already the second time that ENSINGER has participated in this trade meeting.

The die casting division in particular presented itself with their entire product range. As the only systems provider offering pressure-less cast moulded parts and semi-finished products made of PA 6G, PA 12G and Nyril all from the same source, the company stands out particularly within its own branch of industry. The characteristics of the castings range

from extremely hard to highly elastic products. Nearly all customer requests from falling parts from the tool to blanks can be fulfilled.

ENSINGER introduced both established as well as new products during the trade fair: sliding elements, rope pulleys, runner wheels, screw conveyors, friction liners, etc. for all kinds of applications were presented. Furthermore, new printed materials were introduced: the division presented individual product information sheets and "case studies", which were produced especially for the bauma, providing technical information and descriptions of individual typical applications in two languages (German and English). Also, there are now contact leaflets introducing individual personal contacts in the die casting division – the voices previously just known at the end of a telephone have now been given a face.

A number of exhibitors reported unexpectedly high order receipts

from home and in particular from abroad. Various contacts were made – the public was more than impressed by that which the company offered. "Without exception, we had competent specialist visitors at the trade fair booth, discussions were very specific. First orders are to be expected fairly soon", according to Walter Wagner, the division manager who was present during the whole event.

About 70 % of our visitors were from abroad. By the way, the ENSINGER visitors who had travelled the furthest came from Australia and Dubai.

You can also request the above mentioned "case studies" and personal contact leaflets free of charge via impulse@de.ensinger-online.com.



Presented at the bauma: The casting applications using **TECAST**, **TECAST 12** and **TECARIM**



TECAGLIDE, a modified **TECAST** casting polyamide, was the material of choice for a screw conveyor to transport glass bottles without jolting and with low noise to the cleaning and filling station. With a low coefficient of kinetic friction, good abrasion characteristics and ease of use in cutting operations, it completely fulfils all requirements. A particularly distinct feature of this material is the bright green colour.



Poured metal shafts are used after mechanical processing for transporting various components made of metal or plastic. The profile of requirements in this case was high abrasion and wear resistance, low moisture uptake, low rolling resistance and good concentric and plane accuracy. **TECAST 12**, a PA 12 casting polyamide with lowest possible moisture uptake was best suited to these requirements.



Friction liners are used in ski lifts for acceleration down at the valley station or for braking up at the mountain station. This requires low abrasion and high impact strength down to -40 °C without icing up. The need for moderate numbers of production units, the possibility to incorporate UV absorbers into the material and the ability to increase dimensional stability by the addition of glass fibre, as well as different wall thicknesses, were all arguments in favour of using **TECARIM**.

Well-tried and tested ENSINGER components were also to be found elsewhere at the bauma, such as here at Terex-Demag (see above photo): support plates to support mobile cranes in use to prevent lateral tipping and to secure them. These have to transmit the extreme loads arising down to the foundation. After extensive series of trials were carried out, a special type of **TECAST** was approved for this safety-relevant application. This met the requirements of high mechanical loading capacity and enormous toughness at temperatures in use of -40 to -50 °C.

Karl-Martin Hess retires

Someone "who has truly influenced the ingenuity of ENSINGER right up to the current day"



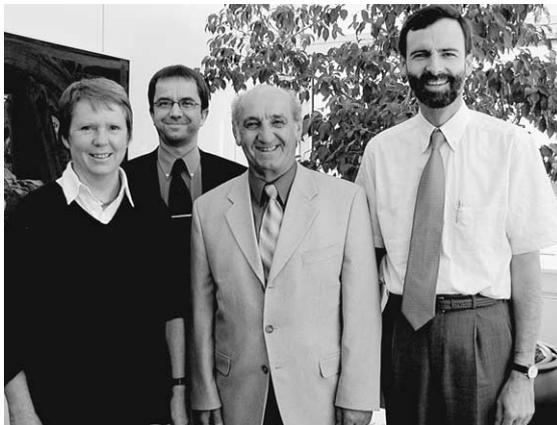
Wilfried Ensinger, Klaus Ensinger, Karl-Martin Hess and his successor, Wolfgang Schwab.

[DW] Karl-Martin Hess has gone into well-earned retirement after almost twenty working years at ENSINGER. At a small celebration, he officially said goodbye to his colleagues – even though this was not quite final, as Mr. Hess has agreed with the company to continue to work on a further project for ENSINGER. The setting up of the compounding department and the corresponding

know-how in the preparation of materials belong to some of the first assignments and services rendered by Mr. Hess, who joined the company in 1985. Over the course of time, his responsibilities were extended, which finally included managing production and all technical divisions of the company. As the size of the company increased, he concentrated his efforts more and more on the recycling of materials, the electrical and metal working shops, construction of machines and equipment, the central maintenance department as well as the new construction and upkeep of the premises. Two years ago, he also took over responsibility for the construction of production equipment and facilities as well as tooling. In his various functions he was involved in many of the fundamental decisions which have paid off for the company – "he is really one of those who have truly influenced the ingenuity of the Nuftringer unit right up to the current day", praised General Manager Klaus Ensinger in his farewell speech.

Mr. Wolfgang Schwab, who has been with the company since last November, is the successor of Mr. Hess. We wish Mr. Hess an enjoyable retirement and we wish his successor all the best for his professional future at ENSINGER.

"Our Alfred" retires to begin a new chapter in his life



[RZ] My goodness, how time flies! After more than 14 years at ENSINGER, Alfred Heimerl, generally known as "our Alfred" goes into his well-deserved retirement. He is tireless, always helpful and always ready for a laugh – that was what all the people confirm who worked together with "our Alfred".

And this is almost the whole works – since as the company's driver, he was well-known to nearly every employee. During a small celebration, managers and colleagues said goodbye to him and wished him good health and all the best for him and his family in this nice new chapter in his life.

A hearty welcome

from ENSINGER to our new employees.

Nuftringen

Paulina Deines	Assembly – Injection Moulding Division
Nina König	University placement, Marketing Business Development
Andreas Schittenhelm	Technician, Material Preparation
Gerhard Zanker	Employee Tooling Department
Wolfgang Schwab	Manager Service Center of Technical Services

We wish you all a successful future at ENSINGER!

Successful completion of training in Nuftringen

[ASt] Nicole Ebner, Markus Stolzer and Jochen Schopp have successfully completed their apprenticeships at ENSINGER. Jochen Schopp was especially successful – having been honoured for his outstanding achievements – not only at the final exams but throughout his training with the company. Jochen also received a special award at the Chamber of Industry and Commerce in Böblingen. Congratulations! We also say a special thank you to the trainers and, in particular, Heinz Lehmann who

have guided and supported Jochen Schopp. It is for us a special pleasure that we could meet the desires of the three young people and employ them within the company. Nicole Ebner is now working in the sales department for semi-finished products, Markus Stolzer supports project management in the injection moulded parts department and Jochen Schopp is displaying his abilities in the tooling department. To all three we wish a successful start to their working life.



Date

Training starts: Pupils who gain their school leaving qualification in 2005 and who are interested in an apprenticeship at ENSINGER, can still apply for the following jobs. Applications will close at the end of this year's summer holidays:

- Industrial clerk
- Process mechanic
- Tool mechanic
- Industrial engineer

Applications will close at the end of this year's summer holidays and should be made to:

ENSINGER GmbH, Personnel department, Arnt Stumpf, Tel. 0 70 32 81 92 74 or arnt.stumpf@de.ensinger-online.com.

Prize competition

In the last issue of the impulse we asked, in which sector ENSINGER received ISO 13485 certification. The correct answer is "Medical industry". Among the numerous entries, the following winners were drawn: Donata Kubinka from ENSINGER Polska, Andreas Becher from Alcoa Europe and Josef Häuslinger from Robert Bosch GmbH, Immenstadt. All three received a writing set by Rotring. To all the others who entered, many thanks for your contribution.

This time, we want to know from you, **in how many standard colours TECAFORM AH MT is available.**

Just send the correct solution until 30 June by e-mail to impulse@de.ensinger-online.com. Perhaps, soon you might be the owner of one of three useful bike repair kits. Good luck!

The impulse interview

Questions to Dieter Scharf



Dieter Scharf studied mechanical engineering in Stuttgart and worked eleven years in the building hardware industry in work planning, factory planning and logistics before joining ENSINGER. For the last three years he has been head of the warehousing and shipping department for the semifinished products group. Since then, there have been some successful projects in this area. "impulse" spoke to Mr. Scharf about the changes and further plans.

You have been at ENSINGER for three years now – since then quite a lot has happened in your department. How did you experience these developments?

All the changes in my department could only be carried out because I was given the freedom to work creatively and to serve procedures in a better way. Clear objectives from "above" and full backing and cooperation from employees meant that all projects were completed successfully. These were, for example, the conversion of the Silav plant – our fully automated underground warehouse for long products – the conversion of the order processing centre and the internal organisational change with the aim of increasing supply loyalty.

What exactly is your assignment and where are the particular challenges?

It is my responsibility to organise the department so that we are able to fulfil our delivery obligations to customers, as we are service providers for our customers. It is a challenge for me to manage the staff reporting to me, to encourage their motivation and creativity and to mutually organize processes with them so that things function smoothly.

How do you ensure that customers receive their ordered products as quickly as possible. And what has been your biggest success so far?

We are very flexible by using two forwarding agents and a parcel service, with which we handle 90 percent of all orders. By using long-distance data transmission of the package data to the forwarding agent and early collection of the packed goods, we are able to ensure a delivery quota of 92% within 24 hours within Germany.

Through the reconstruction of the Silav plant and some organisational changes, we have succeeded within one year in increasing the delivery date allegiance from about 75 percent to over 92 percent and also to maintain this between 92 and 95 percent.

Where are the challenges in the dispatch area? Do the new future EU members, for example Poland, mean that transactions will be simplified?

The challenge lies in finding a partner shipping agent which can achieve our quality requirements, the most important being short delivery times without damaging the goods. EU membership of some East European countries will certainly present a simplification of processing in the long-term, as customs formalities will be reduced, however, there are also

various pre-requisites which have to be fulfilled in dispatch so that procedures can be carried out smoothly.

How do you judge your team? Where are the strengths?

My team is innovative and flexible. Short-term orders and urgent enquiries are carried out just as conscientiously and promisingly as daily routine. Even if a customer calls us at 1:00 p.m. and wishes to have the goods sent out the same day, we can deal with this successfully. We see ourselves as a service provider of the sales department; our strengths are creativity and good collaboration within the team, which we achieve by regular meetings and by visualisation of problems and results.

Has the current debate about the motorway toll affected shipping costs very much? Have customers noticed this in any way?

ENSINGER will not be able to avoid the planned toll costs. The forwarding agents will pass on these costs to their clients. By using specific measures, such as the introduction of electronic data transfer of package data to the forwarding agent, we hope to be able to compensate for some of the future toll costs.

What do you think of the online calculation and ordering system for goods which are cut to size? Is this promising?

We have made a big step toward into the future with the online calculation and ordering of goods which are cut to size. We have gained more transparency and the customer will profit from this. At the moment we are in the process of rationalising our machinery in the carpentry department. A fully automated cap saw will be delivered at the end of May, with which we can produce lengths by the metre and sections more reasonably. A new rotary sanding machine is also planned in order to satisfy increased customer requirements (such as surface quality and depth of roughness). Similarly, we are just experimenting with new equipment approach in the area of machining. It is possible to plane and belt sand sheets with this machine in a single working step so that a sanded surface can be achieved without grooves and pocketing.

How much warehouse capacity is there at ENSINGER? What types of storage areas do we have? What is so special about them?

We will have storage space for about 900 tons of material, at the moment we have about 650 tons in stock. In our fully automatic long products warehouse we have 1200 storage spaces available. It is only because of the fully automated warehouse that we are in a position to fill about 2600 orders and supply 5700 items per month punctually with a low use of personnel.

What are your next objectives? Are there big projects planned for the future?

Our aim is to supply customers even more quickly, more flexibly and at a more reasonable price. We want to achieve this with the help of the small quantities manual warehouse, which is currently being set-up. Small orders up to 35 kg can then be picked from here. Service for the customer will be improved by shorter access time than is possible with the automated warehouse. The customer can then order, for example, up until 2:00 p.m. and his goods will be shipped on the same day. A restructuring in the outer warehouse area is planned, in order to create more storage capacity for our products.

Mr. Scharf, thank you for the interview!

ENSINGER business life

Award: Injection moulding division distinguished as an A-supplier by BorgWarner

[DW] ENSINGER has been classified as an A-supplier from the automobile component supplier BorgWarner Transmission Systems GmbH and has been awarded an especially created prize for this purpose. During the semi-annual assessment, the company not only places emphasis on the quality of the supplied goods but also considers points such as supply performance, ecological awareness, communication, technology and cost reduction activities. In all these factors ENSINGER was given the best evaluation. Borg

Warner praised the high overall quality level of the products.

ENSINGER produces injection moulded components made of high performance plastics for the automobile component manufacturer, which are being used increasingly in the automobile industry due to their excellent properties and are thereby replacing metals. BorgWarner has been carrying out supplier evaluations in this form since 2001 and ever since ENSINGER has also been continually classified as an A-supplier.

insulbar® internet offering extended

Extension of the internet range of goods on offer for the product line insulbar® (profiles for thermal separation of metal window frames) is being pursued in a consequent manner. Very soon pages will also be available in French, Spanish and

Italian languages – in addition to German and English – under www.insulbar.de.

The domain www.insulbar.com will also be expanded as a global platform, which up until now has only been used by ENSINGER USA.

Dates

Conference: Plastics in medical technology

The use of plastics in medical technology is increasing at an above average rate. The worldwide annual consumption of plastics in this field has been predicted to be 3.3 million tons by the year 2005. An enormous potential! As a consequence, it is absolutely necessary for every employee in the plastic processing industry to keep themselves informed about the latest state-of-the-art technology.

A conference which is taking place on 21st and 22nd June in Würzburg will provide a wealth of qualified practical specialist information, amongst other things, with regard to the areas of use and the properties of suitable plastic materials.

24 specialists will pass on their practical experience, including ENSINGER employee and technical advisor Dipl.-Ing. Peter Bongardt, who will introduce high performance plastics as a potential for innovation in the medical technology area.

You can find the program and further information under impulse@de.ensinger-online.com.

SKZ seminar "Tribological properties of thermoplastics"

The use of plastics in moving technical systems represents an interesting alternative to using metallic materials. However, their use also requires an exact knowledge of their properties, especially that of the tribological characteristics (friction and attrition).

A seminar is taking place on 6th July at the Southern German Plastic Centre in Würzburg on the subject of "Tribological properties of thermoplastics".

In addition to numerous speakers from the areas of plastics production and applications, Dr. Heimo Bieringer, head of the ENSINGER "Marketing Technical Services" department will give a lecture on "Plastics for tribological applications".

This event is aimed at engineers and technicians from production, development and construction, who are involved in selecting materials.

Are you interested? You can find the detailed program and the registration forms in the news section of our homepage.

MedTec 2004



Frank Kirchner, Technical Advisor and Hans-Joachim Weiss, Sales Engineer.

During the MedTec trade fair in Stuttgart, ENSINGER presented the latest trends in plastics and applications in medical technology. Many contacts could be made – also and in particular with foreign visitors.

Penn Fibre, U.S.A.

First series of thermoformable PPS sheets and films

[DW] Flame-resistance can also be achieved without using flame-proofing agents or fluoropolymers. That has been demonstrated by the ENSINGER associate company Penn Fibre in the field of thermo-formable sheets and films. The company now offers these semi-finished products made of inherently flame-resistant Fortron® PPS, which is poly-phenylene sulphide from Ticona.

The declared objective of Penn Fibre was to make thermoformable sheets and films without using flame-proofing agents. Apart from cost and environmental aspects, factory manager Mike Gehrig sees other advantages of PPS semi-finished products for the user: "As these sheets and films, which are versatile in use, are inert and have good thermal characteristics, they are also excellent for replacing fluoropolymers." He also estimates that processors will be able to save 30 percent and more in material costs by using Fortron® PPS instead of fluoropolymers.

Penn Fibre was looking for a material with high thermal and chemical resistance. Furthermore, the profile of requirements for sheet and film goods also specified flame-resistance, however, without the addition of flame-proofing agents. Typical application sites for such a

material specification are to be found in containers used for chemicals, under the hood of automobiles as well as large, thin-walled panels, as are used in air-planes, trains and buses. It has been possible to develop a whole series of formulations of Fortron® PPS especially designed to satisfy the needs of thermoforming. The range of products also includes glass fibre reinforced types, as well as other modifications to the qualities – for example, with impact-resistant finish.

In the meantime, the PPS semi-finished products from Penn Fibre have successfully completed their test in practice, including that with thermoforming customers. They were offered as sheets or film goods (up to 122 cm width) in thicknesses of between 0.25 and 6.4 millimetres. Furthermore, the semi-finished goods can be supplied with facings, including those using glass fibre or polyester woven fabric. The plastic processor receives an easily formable crystalline semi-finished product with an exceptionally high melting point, which permits processing at temperatures between 288 and 315 °C. Beyond this, the sheets and films can be custom made in many different ways to the specific needs of the customer.



PPS semi-finished goods from Penn Fibre in Bensalem, PA, the American associate company of ENSINGER, make it possible to dispense with flame-proofing agents.

And finally: strange but true

Huge dead snake behind ENSINGER building

A stroller from Nufringen was really astonished when he recently came across a quite extraordinary discovery: an emaciated four metre long snake was lying in a ditch. A specialist who was called immediately identified the species as a dark tiger python, "Python molurus bivittatus, and it is dead!" The exact circumstances of how the snake came to be at this place behind the ENSINGER building, and who owned it, have not been discovered to date. Let's hope that this will remain a unique matter.



Plastics – in a different light

At the beginning of April, on the A1 autobahn near Tecklenburg, a lorry lost a tank of 20 tons of synthetic resin which poured out over the road. The road surface quickly became viscous; for 1 km to the south and

300 m to the north it appeared as if the road was covered in honey. The layer which was several centimetres thick had to be scraped off – after it had dried! For several hours the traffic situation was quite slow moving and sticky.

Last but not least ...

The versatility of fields of applications for ENSINGER plastics could be seen in a very traditional environment during the last carnival season: The "Achalms", a fun orchestra from Swabian Eningen used our Polamide 6 as drum sticks! Was this choice of material due to the good vibration properties of the material? In any case, ENSINGER is setting the tone.



THE LITTLE LATERAL THINKER BRINGS COLOUR INTO MEDICINE

OH MY GOD, THE DOCTOR HAS MIXED UP ALL THE IMPLANT TRIALS AGAIN. BUT IT'S REALLY NO WONDER, SINCE THESE METAL THINGS ALL LOOK THE SAME.

THE IMPLANT TRIALS MADE FROM TBCAFORM AN MF ARE AVAILABLE IN MANY DIFFERENT COLOURS AND THE SIZES ARE MUCH EASIER TO DIFFERENTIATE ...

... FURTHERMORE THEY CAN BE USED SEVERAL TIMES SINCE THEY ARE RESISTANT TO STERILISATION METHODS AND CLEANING AGENTS.

GREAT HOW SIMPLY THE PARTS CAN BE SELECTED CORRECTLY NOW.

Impressum

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