



New trade fair booth at K 2004

Positive economic trend also noticeable at ENSINGER



[DW] At K 2004, the world's largest trade fair for plastics and rubber which took place at the end of October in Düsseldorf, it was ENSINGER's declared objective to present itself as a competent and innovative development partner and as a globally active company. The visitors' reactions show that the company succeeded in doing this! Covering more than 150 square metres and two storeys, ENSINGER presented both new, as well as its tried and tested, products and services.

The new booth concept (we presented this in detail in the last edition of "impulse") placed the main focus on industries and specific lines of business and guided the visitor over the exhibition area using a framework system. This produced a positive response from both employees as well as from visitors. ENSINGER presented more new products than ever before at this trade fair – there was something of interest for every branch of industry. The most exceptional innovation was self-reinforcing TECAMAX SRP,

which is considered to be the hardest, strongest and most rigid non-reinforced thermoplastic ever. Once again, the trade fair booth was manned internationally: Many employees from affiliates throughout the whole world represented their subsidiaries and were able to provide visitors with advice and answer questions. Customers and interested parties with specific issues visited the stand, as did visitors who simply wanted information about the company and its products. Foreign visitors were also strongly represented again, as usual. Compared to 2001, ENSINGER recorded a large increase in the number of visitors – in fact the entire trade fair registered more visitors than ever before. During the eight day period of the

trade fair, 231,000 expert visitors from more than 100 nations came to Düsseldorf for K 2004 and every second visitor was from abroad. The exhibitors attribute the success to the market rebound, which was clearly noticeable and had a positive effect on the general atmosphere. "Customers are required to produce better product, more quickly and, at the same time, at a lower price. We can meet these requirements with our high performance plastics – and this can also be measured by the number of promising contacts we made during the trade fair", according to general manager Dr. Roland Reber, who was very pleased with the outcome of the K trade fair. On page 6, we report on the successful fair participation of our Building Products Unit.



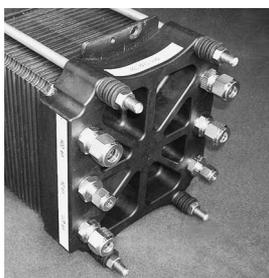
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The fuel cell: Muscle man under the bonnet

ENSINGER cuts end-plates for prototypes

[DW] The fuel cell is going to be one of the key technologies of the 21st century: The energy source of the future is already being tested today in mobile telephones, laptops, building and domestic technology applications. The automobile industry is also already very advanced in the development of this new power supply with numerous prototypes. The powerful electromotor hums quietly and only steam rises out of the exhaust pipe. Fuel cell driven vehicles are finally on the roads. Almost all the major car manufacturers are currently working flat out to make the dream of the zero-emission car come true. However, before the environmentally friendly energy source of the future can also be used commercially, three fundamental problems will have to be solved: Price and weight are still too high, the service life is too short.



A prototype of a fuel cell was used at K 2004. The end-plates are made of TECATRON® PPS and were produced by the ENSINGER Cutting Operations Division.

tures. This saves money and weight. Engineering plastics also have the advantage that they make fuel cells more efficient in the long run. TECATRON® PPS, for example, resist aggressive media which act inside the fuel cell without a problem. Furthermore, it is resistant to corrosion and keep its shape even at temperatures up to 240°C. Also, the use of high-tech polymers for so-called peripheral components is worthwhile. After all, pumps, compressors and auxiliary equipment, which supply the fuel cell with the fuels it requires, have to resist aggressive substances.

Ready for volume production using engineering plastics

However, the development engineers are not ready to give up yet: Large portions of the fuel cell can be produced in the future using high-tech polymers instead of metal. In bipolar plates they replace gold-coated stainless steel, aluminium, graphite or Duroplast-graphite mix-

Service Centre opened in Sweden

ENSINGER GmbH is now also represented in Scandinavia!

[DW] "Frage. Tänk. Lös." – Since 1st February, ENSINGER has been active under this motto with a Service Centre in the Swedish town of Enköping. Marketing and Sales Manager Martin Baras was in Sweden together with Export Manager Björn Uhlken for a small opening reception and welcomed Kent Åkerdahl with his two fellow workers Per Jelensek and Richard Karlsson into the ENSINGER family. For Martin Baras, the main emphasis for the new Service Centre lies in the development of the market: "Business development is the first priority for our activities in Sweden. We would like to open up new market outlets, find new applications and introduce our new products. Intensive training of our good customers, the transfer of knowledge and providing information on current trends are our main concerns." The main current focus of the Swedish plastics market is essen-

tially in construction plastics, however Baras also sees an enormous potential for interesting applications in the area of high performance plastics. "Uses in medicine, telecommunications and the automobile field offer many possibilities. It is our objective to continue to develop new areas and above all also to make our new products known there."

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Martin Baras presents Kent Åkerdahl with a welcoming certificate.

Editorial

The organisation of strategic partnerships



An idea which has been propagated for more than twenty years is now catching on more and more as a concept in practice: networking. Companies are opening up their frontiers and are working closely together with selected partners across various stages of the value chain – development, procurement, manufacturing, marketing and sales / service. The driving force for this development is increasing competition. Marketers neither have the time nor the resources to undertake activities, which are not directly connected to their core competencies. Pioneering work was done by the automobile industry. The relocation of important production and development assignments to the strongly growing component sub-contractor industry led to an enormous surge of innovation. The diversity of different models exploded and many technical innovations were introduced. Thanks to this new customer appeal, it was possible to maintain consumer expenditure on motor vehicles at a high level and to ensure the competitiveness of the German automobile industry. In the meantime, this tendency has also covered further branches. This way, in the building industry, SCHUECO successfully realised product and process improvements by well-

directed networking. We also can learn and profit considerably from this procedure. This trend represents an opportunity for our company as a classical outside supplier to industrial enterprises from all branches of industry. In more and more areas and applications, we are moving further away from the classical role of component supplier and are being closely integrated as a strategic partner of our customers into their development, logistics or production processes. As a rule, such a partnership poses a challenge for both the parties involved, which is quite often not considered closely enough in the course of day-to-day business. Marry in haste, repent at leisure! – even if it is just for a limited period. It is important that the expectations of the partner are considered and clearly expressed over the entire period of the project. Otherwise it is easy to bring up ideas during the cooperation, which go beyond the ability and experience of the partner. Especially in the case of product and process development, it is advisable to involve several partners. The management of the interfaces is more costly, but the necessary specialist expertise for all specialist areas is safeguarded in this way. Collaboration in this form also necessitates expenditure on integration: The acquired knowledge and the status of the projects have to be exchanged and reminders given for due dates. The exchange of information via standardised channels and good project management should therefore not be neglected.

The question of which partnerships a company wants to enter under the given circumstances is just as important as the question of what products and services should be offered. It is good for those companies who recognise this opportunity, but the risks must also be considered. Finally, an important opportunity: Partnerships which take place in a forthright climate offer valuable opportunities to learn – new products, processes, process knowledge and organisational knowledge are within reach. Many companies have found ways into quite new market niches and growth through such partnerships.

Whether this will also be the case for ENSINGER remains to be seen. The fact is that we will increasingly undertake partnerships especially in procurement and applications development. Coping with the associated organisational and cultural challenges will be an important concern for us in the years to come. It should be beneficial for you, our customers, in the form of higher efficiency and attractiveness – not just as your supplier, but as your secure partner of choice!

Yours sincerely

Klaus Ensinger
 Klaus Ensinger

International conference was a success



Under the motto "Professionals for Professionals. From raw material to application", ENSINGER held an international symposium at the K-Trade Fair for the first time at which experts from important branches of industry of the future held lectures. The speakers introduced the latest developments from industry to customers and business partners, and thus mentioned ENSINGER's position in the respective value chains. Amongst other things, there were topics on the agenda from the semi-conductor and electronics industry, about fuel cell technology and the area of medical technology.

The highlight of the event was the introduction of the superlative plastic "TECAMAX SRP", the strongest, most rigid and hardest thermoplastic without reinforcing fibres which ENSINGER has been selling since the K-Trade Fair. "It is important to us that our business partners can place us in the right position in their value chains. The symposium gave us exactly the right platform to do this. Because of the high and positive resonance, we are sure to include such conferences in our event calendar", confirmed Dr. Jürg Wiedler from Business Development, who was involved in setting up the symposium.

... K-Trade Fair continued

continued from page 1:

Service Centre opened in Sweden

Kent Åkerdahl, who manages the Service Centre, has already been selling ENSINGER products for 17 years and is well versed with the portfolio. So, there was no doubt for the company that "he is our man for this project". Kent Åkerdahl started his career in 1969 as a plastics tool-maker and then changed direction in 1987 to sales and marketing. He says "after all those years you quite automatically start to think like anyone at ENSINGER – and now I am one of them, a "tvärvigg", a lateral thinker." His two colleagues Per Jelensek and Richard

Karlsson, who are responsible for technical advice, have also been active in the plastics industry for a long time and already have wide-ranging expertise. Naturally, ENSINGER will also continue to assist existing customers from Nuffingen as in the past and support them with regard to sales activities and market development. "And when we look at the world map, there are still blank areas for further ENSINGER Service Centres" said Martin Baras with a grin when asked about future plans ...



Björn Ühiken (left) and Martin Baras (middle) welcomed ENSINGER SWEDEN AB to the ENSINGER family; Kent Åkerdahl (2nd from right) and his two colleagues Per Jelensek (2nd from left) and Richard Karlsson (right) will provide technical advice to customers from the Service Centre.



"Human machine" Patrik Schellhaus (photo right) was the "top act" of the evening. With his robot voice and mechanical handshake, he welcomed every guest personally and was later the fascinating highlight of the evening with his very impressive juggling act.

At the ENSINGER evening, which once again took place in an Italian restaurant in Düsseldorf, ENSINGER employees and customers were able to spend a few enjoyable hours together. Here you see colleagues from ENSINGER Spain with their customers from Plastimar, Vapla and Sipen.



Anniversaries – 330 years of experience with plastics in Cham



Some of the 330 years of experience at ENSINGER

[Ph] There were quite a few anniversaries to celebrate in Cham during 2004, as ENSINGER was able to welcome 29 new associates to the company in Cham in 1994 – 10 years earlier it was “just” 2 new “Bavarians at the Swabian company”. In the Building Products Division Christian Ederer, Oliver Gall, Peter Hamfler, Josef Obl, Klaus Bergmann, Max Gruber, Erwin Kollmer, Stefan Griesbeck, Christian Serve, Rene Altmann, Markus Dierl, Dieter Girgnhuber, Walter Lankes, Erich Weinfurter, Mario Wernemoser, Oliver Lerp, Johann Stadler, Roland Weingärtner, Viktor Gerzen and Michael Lang celebrated their 10-year anniversaries, and this year Konrad Kropf has been “at it” for 20 years. In the case of “the cutting operators” (Finished Products Division), Konrad Bücherl, Andreas Wanning and Wolfgang Ippisch all celebrated 10 years at ENSINGER, Josef Dendorfer can look back on 20 ENSINGER years. Martin Luger has been in the Moulding Department for 10 years, at the Service Centre in Cham Regina Herrmann, Klaus Schwendemann, Rupert Holzer, Kon-

rad Wagner and Annemarie Amann celebrated 10 years at ENSINGER. At this year’s Christmas party, managing director Klaus Ensinger, factory manager Andreas Alsfasser and the works council congratulated those associates celebrating an anniversary and thanked them for their long-standing loyalty to the company. The division and Service Centre managers had already personally thanked “their” staff celebrating an anniversary in the respective month in a smaller circle of well-wishers, taken a “journey back into the past” with them and unanimously agreed that in “just” 10 years a lot has changed at ENSINGER in Cham. In the meantime, the 213 employees which were at the factory in Cham in 1994 have now grown to almost 320 and many “new ones” have been recommended by the “old hands” to “come to ENSINGER” – the company is also proud about this form of “corporate promotion”. The outlook for the year 2005 is once again tremendous: In this case, we have almost 600 years of accumulated plastics experience!

Anniversaries celebrated at Nufringen

[MBe] Mrs. **Gabriele Vollmerhausen** has been able to experience and help create 25 years of ENSINGER history. Her main professional emphasis has been in the area of finance/controllership, where she has worked through the complete spectrum of jobs ranging from financial accounting to payroll accounting and has thus already carried out numerous accounting assignments within the company. Currently, Mrs. Vollmerhausen is mainly responsible for travel expense sheets. We are delighted about the long-standing, productive collaboration with Mrs. Vollmerhausen and wish to thank her for the achievements she has accomplished so far.

Also, Mr. **Kuldip Singh** is amongst the anniversary candidates who were able to look back on 10 years of company membership at the beginning of the year. He has been assisting in injection moulding production since January 1995 and we are pleased to thank Mr. Singh for his loyal collaboration.



In the last month of the year 2004, it was Mr. **Thorsten Wuttke’s** turn to look back on 10 years of company membership at ENSINGER. He started his work with us in December 1994 in the operating resources warehouse. In this job he supplied his colleagues with „materials“, from tools to clothing and even occupational safety shoes. We wish to thank Mr. Wuttke for the successful collaboration.

With his occupational training as a tool-maker, Mr. **Christian Röhm** already laid the foundations as a skilled employee in the tool-making department for his current job as a tool mechanic at ENSINGER. Mr. Röhm also started in January 1995 at our company and we wish to thank him at this point in time for the long-standing and good cooperation.



ENSINGER – “distinguished” once again

[Ph] Is it the good choice of applicants when awarding traineeships, how well they are looked after during the apprenticeship, the intensive internal preparation for the final examination, the remarkable specialist and personal qualities and involvement of the training instructors or the continually above average readiness for achievement and the pronounced enthusiasm for the profession on the part of the trainees themselves? Well – presumably it is the combination of all the above factors which has led ENSINGER in Cham to become a “permanent feature” when commending the best trainees and training companies

within the chamber of commerce (IHK) area of Regensburg. And so it was once again after last summer’s examination: During a ceremony of the IHK in Regensburg, Thomas Bücherl (2nd from left) was distinguished for the best result in the examination for process mechanics in plastics and rubber technology in the presence of Mr. Weidinger, Chairman of the Regional Council (right) and IHK Honorary President Heene (left). Andreas Alsfasser, Factory Manager in Cham, also received an award in recognition of his particular services to the professional training of apprentices.



Experience of company practice close up

Cooperation agreement between ENSINGER and secondary modern school

[DW] At a ceremony, the cooperation agreement was signed for a learning partnership as part of “Kurs 21” (co-operation network of companies and schools in the region) between the Gärtringer Theodor-Heuss secondary modern school and ENSINGER GmbH.

The pupils are intended to meet ENSINGER as part of the school coursework in their various class grades and subjects as a role model company in the working world.

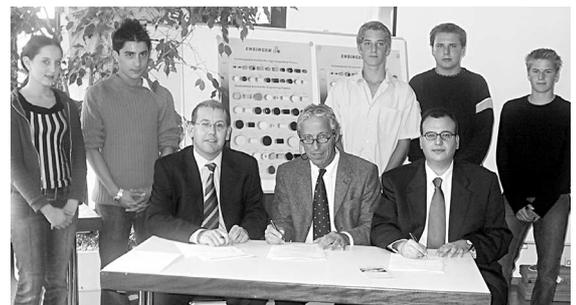
According to Thomas Weise, project manager for “Kurs 21”, this was the 12th such contract to be signed in the state of Baden-Württemberg. The objective is to bundle energies and to utilize the strengths of both parties. The co-operation partnership should be viewed as a platform for all involved, in order to broaden horizons in all directions.

Beate Zweigle from the Chamber of Commerce (IHK) Stuttgart Region found words of praise. The intention is for all participants to become more open to risk doing something new, pursue new routes and to achieve something positive, according to Zweigle. And this deserves recognition. ENSINGER personnel assistant Arnt Stumpf gave an overview on the possible projects, which range from job orientation to training for job applications, analysis of Germany as a location, information on the chemistry of plastics, art and technology based on plastics to public relations work in companies. ENSINGER general manager Klaus Ensinger explained that within the scope of the learning partnership bet-

ter integration in schools is meant to take place and a generally better understanding for the needs of companies should evolve. He stressed the strong interest on the part of this family-run company to support young people making their first steps in working life. In his opinion, it is more important, for example, that young people develop their personality during their training – with all strengths and weaknesses – than to take an internet course, and learn to think for themselves.

For secondary modern school principal Günter Frege it is important that pupils acquire entrepreneurial capabilities during the project, develop self-reliance, get to know the reality of working life and last but, not least also have fun. He refers to school as the “rehearsal stage for real life”, which pupils should now get to know better through the project.

The partnership is initially valid for one year, however, a long-term cooperation is the objective of both sides.



And finally – retirement



After 34 years at ENSINGER, Gerhard Lichtenberger has now gone into well-deserved retirement. Fortunately, his expertise will be preserved to the benefit of Technical Marketing: he will continue to support his colleagues on a part-time basis, as the need arises! We wish him all the best!

The ten commandments of composure:

Chosen to start with as the candidate to save the day, John XXIII came to be the most popular pope of the 20th century. He combined intelligence and regenerating power with his legendary and humorous composure.

He wanted to bring "a fresh wind into the church" and go new ways with the ecclesiastical council: "Without a little holy madness, the church cannot grow."

And so it was that a man sat on the papal throne since 1958, who described cheerfulness, inner peace and devotion to God as the three simple pillars of his life. His manner was marked by kindness and optimism.

In the same way, his ten rules for composure turn out to be just as philanthropic, with which I would like to provide you as some food for thought:

1. *Life: Just for today I will try to experience the day as it is – without wanting to solve all the problems of my life at once.*
2. *Care: Just for today I will put a high value on my appearance and be well-mannered in my behaviour. I will not criticize anyone. I will not strive to correct others or to improve them – only myself.*
3. *Happiness: Just for today I will be happy in the certainty that I was created to be happy – not for the other, but also for this world.*
4. *Realism: Just for today I will adapt myself to the circumstances, without demanding that the circumstances adapt themselves to my wishes.*
5. *Read: Just for today I will devote 10 minutes of my time to a good book. Just as food is essential for life, a good book is necessary for the life of the soul.*
6. *Act: Just for today I will do a good deed. And I will tell no one.*
7. *Overcome: Just for today I will do something, which I do not want to do. Should I so doing hurt myself from within, I will ensure that no one notices.*
8. *Plan: Just for today I will make an exact agenda. Perhaps I will not keep exactly to it. But I will write it down and beware of 2 evils: hurrying and indecisiveness.*
9. *Courage: Just for today I will not be afraid. In particular, I will not be afraid to enjoy everything that is beautiful – and I will believe in goodness.*
10. *Trust: Just for today I will firmly believe (even if the circumstances point to the opposite) that the valid providence of God will take care of me, as if there were no one else in this world.*

Best wishes for the year to come for you and your family. Health, happiness and contentment – and that little bit of optimism and composure!

*Chairperson of the Works Council
Ilona Brodt*

Prize competition

In the last "impulse" we asked for the ENSINGER motto used at the K-Trade fair. The correct answer was "ENSINGER Global Innovation". The prizes, which in each case was an ENSINGER tool set, went to

Franz Schaffer, VAE Railway Systems, Austria
Renate Prommesberger, ENSINGER GmbH
Ludwig Grauvogl, EADS Lenkflugkörpersysteme GmbH

Congratulations!

The question for the current prize competition is:

What is the ENSINGER slogan in Swedish?

Send the answer by e-mail to impulse@de.ensinger-online.com.

The closing date is 1st April, 2005.

You may win one of three ENSINGER laser pointers –
Good luck!

Welcome...

ENSINGER wishes to welcome the following new employees:

in Cham:

Reinhard Beer Production Manager, Casting Department
Alexandra Volkammer Employee in Reception / Switchboard

in Nufringen:

Julia Bieber Clerk, internal domestic sales semi-finished goods
Andreas Schmid Project Engineer, Department Raw Materials
Petra Franzke Temporary assistant further processing, Injection Moulding Division
Sven Pflumm Design Engineer, Injection Moulding Division

We trust all new employees will get off to a good start at ENSINGER!

Trainee excursion 2004

Visit to the K-Trade Fair and conducted tour of Poly Clip

The destination for this year's annual trainee excursion was the K-Trade Fair. On 20th October, 56 participants set out in the late afternoon for the youth hostel in Bad Honnef. Since the journey and the day had been quite strenuous, we all fell dead tired into bed after a quick meal of pizza.

We had all been given a task for the trade fair booth on the following day, which was to be solved in groups. So, we all walked through the trade fair halls, going from hall to hall and from booth to booth, until we had gathered enough information to present the results of our given assignment. Afterwards, there was still enough time to look at the trade fair, each at his or her own leisure. During this time, we were able to collect lots of different advertising give-aways, in addition to gathering many impressions and information. Everything was there – from bulky dustbins to small ball-point pens.

On the journey home the next day, we had the opportunity to look round the company Poly Clip in Frankfurt, a packaging manufacturer, which purchases plastic parts from ENSINGER.

We were the first group to be guided through the company and so our visit was something special for Poly Clip and received a very individual touch. Unfortunately, only 35 of us could participate in the tour. After a short introduction on the company's history, we were led through the production halls in two groups. Time flew and we completed the tour with lunch in the company's canteen. Each one of us received a small gift before departure. Those who were not able to participate in the company tour went for a stroll around Frankfurt together with Mr. Stumpf and Mrs. Betz. At 2:00 p.m. we set out on the return journey. As we had not slept very much the night before and were pretty tired, most of us took the opportunity to have a rest in the bus. We finally arrived back at Nufringen at 6:00 p.m. and while the Nufringen group unloaded their luggage and said good-bye, the Cham group boarded the bus again for the final lap of the journey – as they still had several hours bus ride ahead of them.

Marina Hippich, trainee

Skiing excursion 2005

Sun, fun, and ski enjoyment...



... three little words, which could not describe the complete ENSINGER skiing outing more fittingly! On 15th January, the 40-man ski group was rewarded once more for getting up early and were welcomed at 9 o'clock in brilliant sunshine on the "Hochjoch" after a 4-hour bus ride from Nufringen to Schruns. Strengthened by coffee, mulled wine and the one or other beer on the ride down, the ENSINGER ski fans could hardly wait to storm the mountain top with the gondola and

tear down the slopes. Without a cloud in the sky, but with sufficient snow on the slopes, the enjoyment of skiing and snowboarding was really only interrupted briefly on this day by hunger and thirst at lunchtime. A warm snack, something "cold" to drink and some sunscreen for the nose was all that was needed to make the ski enjoyment simply perfect. After the refreshment break, everyone went straight back to their skis in order to make optimal use of the beautiful

day. The chair and T-bar lifts were used right up to the last ride, and then about 4 o'clock the day ended with a practised stop at the snow bar. Freshly "tanked up", some of the group returned to the valley for supper by gondola whereas the die-hards took to the downward slopes. Just right for giant appetites, we were all served extra-large portions so that around 7 o'clock everyone boarded the bus happy and fortified for the ride home. Anyone who thought the fun and high spirits would be dampened by tiredness had to think again. Because the ride home turned out to be a real happening. The entertainment in the bus by the one or other colleague, supported by free beer as well as good traffic conditions, meant the drive home just flew by. Sooner than expected, the group arrived back in Nufringen at 10:45 p.m. – and all were in agreement that the day was a total success and should be repeated again.

Petra Kalf

Training by the Red Cross

Eight new first-aid helpers

It was purely a man's group this time: eight ENSINGER colleagues participated in the first-aid training course and successfully passed their exams: Siegfried Buchwald, Uwe Lerner, Hermann Galm, Marc Rehling, Winfried Götz, Hussein Akaltun, Artur Wolfer and Klaus Marquardt attended eight sessions and learned and practised everything that a first-aid helper should know and use in an emergency. Under the auspices of Thomas Kalendar from the Red Cross, the volunteers were trained and received an official certificate at the end for successfully completing the course of instruction.

"We possess the proud number of 70 first-aid helpers, which is considerably more than what is required by the employees' industrial compensation society", according to safety expert Rolf DeLenardis, who has been organising these courses for 13 years.



Interview

Interview with Frank Richter Manager of the Raw Materials Service Centre



After completing his university chemical engineering course in 1995, Frank Richter worked for three years at the Institute of Applied Research in Reutlingen on a research project concerning the recycling of foam materials. In 1998, he took up a position as test engineer at ENSINGER and is now head of raw material development and compounding in Nufringen.

Mr. Richter, what exactly is the function of the SC raw materials?

The main task of our Service Centre is the production of compounds. We add fillers, such as glass fibre, lubricants, coloured pigments, etc., to the plastics and produce granulate from this for further processing in-house in injection moulding and extrusion. In addition to the site in Nufringen, we supply our affiliates on a worldwide basis. We also provide technical advice throughout the "Ensinger world" on questions concerning raw materials. Spontaneously, I cannot think of any department at ENSINGER with which we do not have contact.

How big is your team and where are its strengths?

The raw material team consists of 20 employees. Our strengths certainly lie in the high degree of flexibility of each individual colleague. Just a few years ago, day-to-day production consisted of over a dozen compounds, mainly in the polyamide range. Today, we produce hundreds of formulations across the complete spectrum of plastics. This could only be achieved within such a short time by the high level of commitment in the team. Flexibility also means in this respect the continuous expansion of knowledge about new processing technologies and materials.

How can one imagine the equipment used in such a department?

The centrepieces of our department are the double-shaft extruders, which can produce a very intense mixture of the additives with the basic molten plastics. A very complex dosage and weighing system is required to achieve exact additions of the components. An extruder can be fed by any of up to nine different balances. In addition, we have two injection moulding machines for running quality tests which produce test blocks. In the next step, the characteristic mechanical values are determined with these test blocks in quality management.

How does the cooperation with customers work?

In the case of day-to-day products, we normally have no direct contact with our customers. Our direct "customers" are the production departments –

injection moulding and extrusion. Contact arises through the needs of these departments or through the technical marketing department – mostly when new developments are involved, where knowledge of basic compounding or additive chemistry is needed. For example, in the manufacture and application of anti-microbial materials.

Who provides the impulse for the development of new plastics?

Very often new developments emerge from customer inquiries, which have as an objective the improvement of existing products or the creation of entirely new applications, for which no respective material has previously existed.

Developments are also started by our technical marketing department or in collaboration with research institutes. How long a development takes depends strongly on how much "new ground" we have to break. In order to reduce this "new ground", we work closely together with our suppliers and with numerous research facilities.

Quite often reliable information is very difficult to obtain. An example of this is the weathering behaviour of plastics. In this case, we test under more intense conditions, for example, under the Arizona sun or in special weathering equipment – a comparison which only roughly corresponds to reality.

In order to get a more realistic comparison for our materials, we spontaneously placed a device with test bodies on the company roof. Not necessarily a scientific experiment, but all the more a test which is very close to reality under the Nufringen sun.

Which current projects are there?

And what are the plastics of the future?

Due to ever more stringent requirements with respect to the environment, it is necessary to adapt plastics and their additives accordingly. For example, there are projects on the development of more environmentally friendly flame protection agents. But also the fuel cell technology is a subject for the future. Here maximum electrical and thermal conductivity is required. Also, new materials for sliding/rubbing applications are a trend, as more and more these are replacing metals used previously in these applications.

For the future I see plastics as tailor-made materials, which fit exactly to the respective application.

What was the most unusual project up until now?

There are several projects, which come to mind. For example, the incorporation of fibres from the banana tree in connection with the development of products strengthened with natural fibres.

Or the use of expanded graphite – when opening the container you were confronted with this soot-like oily material, which spread throughout the room like black fog. Things were more colourful when we produced a pink PEEK upon the particular request of a customer. Things are never boring!

Thank you very much for the interview!

ENSINGER business life

New warehouse constructed in record time

[DW] It looks a little like the "Flat Iron Building" in New York, the new hall which was recently erected on the site of the old railway station in Nufringen, directly on the B 14. In a record time of just three months it was possible to construct a building with the optimum use of space, which also certainly does justice to any aesthetic claims.

In the course of expansion of the injection moulding division, it was necessary for storage space to give way to the new production plant. The directly adjacent site, which until then had only been used as a parking area, offered itself for the construction of a new hall.

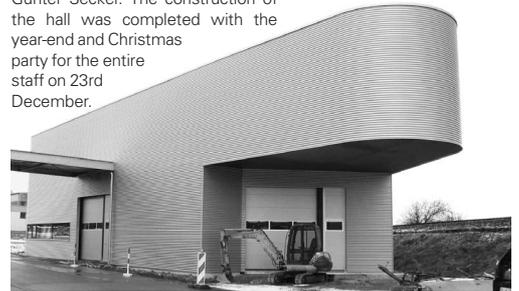
The new building was a big challenge to the commissioned architects, as the optimum storage space had to be produced on the unfavourably shaped plot of land. The architects were able to plan a 630 m² large warehouse, which also optically satisfies all expectations.

The hall is nine metres high and is

fitted with racks and a commissioning area. With the move of the warehouse and the transport containers from the production hall, the fire safety concept was also improved.

"The building work went according to plan and without any accidents and we are particularly proud to have been able to build so suitably on the apparently small site and with such an appealing design", summed up the ENSINGER building site manager Günter Secker. The construction of the hall was completed with the year-end and Christmas party for the entire staff on 23rd December.

The new hall with a floor space of 630 square metres and a height of 9 metres has a capacity of about 750 pallet positions.



Wilfried Ensinger appointed as honorary senator of the University of Stuttgart



[DW] Wilfried Ensinger, the founder and chairman of the Executive Management Board of Ensinger GmbH, was awarded the title of honorary senator of the University of Stuttgart in November. With this distinction, the University honoured Ensinger's "sig-

nificant engineering achievements in the development of new polymer materials, plastic processing methods and technical structural parts", as it is mentioned in the awarded diploma. In addition, his business success in setting up and managing the company group and his active encouragement of research and teaching at the university were also recognized in this way.

There has already been close contacts to the Stuttgart Institute for Plastics Technology under Professor Dr.-Ing. H.-G. Fritz for many years. Wilfried Ensinger received the award during an event celebrating the 175th anniversary of the founding of the University of Stuttgart.

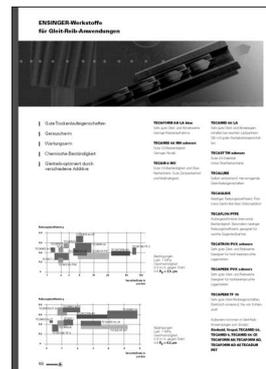
Semi-finished goods catalogue update

[DW] ENSINGER has expanded the catalogue "Semi-finished materials made of engineering plastics" and has issued it anew.

The almost 90-page catalogue was supplemented with the mechanical, thermal and electrical material reference values and details on chemical resistance, as well as information on the processing of these plastics. New too are the additional pages showing a selection of materials for special applications: uses in medical technology, in the semi-conductor and electronics industry and for applications where parts slide or rub.

In the section "Advice – individual and branch-related" all contact persons with their details and a photo are now listed – this now makes it possible for the caller to know the face behind the telephone voice. The catalogue is available in German and English and will also soon be

printed in various other languages. It is available as a download file under www.ensinger-online.com, or it can also be ordered from info@ensinger-online.com free-of-charge.



ENSINGER Building Products

Innovations and premieres at the top trade fairs for the industry glasstec and BAU

New brochure in the Building Products Division



The new insulbar® publication "Perfectly insulate metal windows, doors and façades" provides the reader with eight pages of information about the performance spectrum and range of materials covering all aspects of insulbar® insulation profiles. The brochure has been designed bilingually (German and English) and can be ordered free-of-charge via info@ensinger-online.com.



The most important trade fairs for the building industry and the glass industry in Europe took place in November and January. In other words, a must for the Building Products Division which took this opportunity to present a whole series of new products from the insulbar® and Thermix® product ranges. The new product line Thermix® TX.N was introduced for the first time to the public at glasstec 2004 in Düs-

seldorf. "Warm-edge" spacers, the development of which spans over 10 years of practical experience, combine all the advantages of the previous Thermix® spacers and provide other extras as well. It is easier, for example, using the plastic profile – curved or pinned – to produce processable spacer frames. Through the combination of stainless steel with highly insulating plastic, optimum material properties

can be utilized, so that very good insulation values are achieved. Tests according to DIN EN 1279 Part 2 and 3 have already been passed. For the user of the glazing, Thermix® TX.N is an effective and economic investment in energy savings and added comfort when used as an edge insulator. Also for the insulating glass manufacturer, the new Thermix® generation from ENSINGER is an attractive solution for the rapidly growing "warm-edge" market. The Thermix® TX.N product line, which is available from mid-2005, can also be supplied upon request in special colours besides the standard colours light grey and black. This offers numerous opportunities to architects, insulating glass manufacturers and house-builders with regard to the design of windows and façades.

The full range of improved Thermix® spacer models, which have been available since August 2004, were also to be seen. The optimised contouring of the plastic profiles contributes considerably to simplifying insulating glass production and to increasing processing safety. The completely new remodelled trade booth was presented at glasstec 2004 – also for the first time – and this also formed an appropriate, innovative structure for the ENSINGER building products at the BAU trade fair in January in Munich, which extended over two levels. The entire spectrum of the product lines insulbar®-warm-edge profiles for metal windows, doors

and façades and Thermix® warm-edge spacers and bars were also presented. A particular highlight was the principle of a completely new developed prototyping process which ENSINGER introduced to the public for the first time. It is possible using insulbar® prototyping to produce serially identical profiles with simple geometries within 4 days. Profiles with more complex geometries, e.g. hollow chamber profiles, can be supplied in as little as 10 days. Despite the very short development and production time, there is no loss in quality to the sample profiles: it is already so good that the profiles obtained from the insulbar® prototyping process can be practically tested and used without limitations. insulbar® prototyping was developed for fast and reliable production of sample profiles. In this way, the Building Products Division is able to actively support customers and partners in the development of new systems, in particular against the background of ever shorter development cycles.

The end result of both trade fairs is quite respectable: both products and the trade booth itself were very positively accepted by visitors. Numerous new contacts allow us to make a positive forecast for the current year.

International Trade Fair in Brunn

AURA nomination for the ENSINGER trade fair booth from the Czech Republic



The trade fair team from left to right: Richard Sulko, Jaromir Habart, Jana Dirnová, Sales Representative, Mrs. Jelinčková, Arch. Sejčka, Mrs. Alena Kusova, Internal Sales Semi-finished Goods and hostess Mrs. Paroubková.

The international trade fair in Brunn has confirmed its most important role in the field of mechanical engineering in central and eastern Europe. Over 2,200 exhibitors from 33 countries were present last autumn, one of which was also ENSINGER, s.r.o., of course.

The booth from ENSINGER in the Czech Republic has already received praise for a few years now, even from competitors! And we have repeatedly been urged to sign up our booth in competitions. But because the building costs were always very modest and we occupied a rather small space, we ended up declining this. However, this time the trade fair administration had prepared a particularly special competition, the "AURA" prize. In this case, it was the "aura", i.e. the "charisma" of the booth which particularly count-

ed. Both that of the trade fair booth as well as the objectives achieved by participating in the trade fair, and last but not least the effectiveness of this marketing instrument was evaluated. The jury was made up of well-known personalities from marketing and architectural circles.

"We should also give it a try", we thought and actually only wanted to get some experience. On the first day of the fair we received a visit from the jury, who questioned us about our participation in the trade fair. The first surprise came later that afternoon: our booth had been nominated for the semi-finals that evening and we received an invitation to attend the ceremony. This took place in the presence of the Czech Minister of Economics. The surprise was great when it was announced that ENSINGER, s.r.o. had reached the next round and had been nominated for the overall state competition, which will take place in the spring of 2005! The jury found particularly praiseworthy "the effective use of the small exhibition area, the clear and functional structure of the booth and, finally, the technical competence of the trade booth staff". So that ENSINGER, s.r.o. was able to beat much bigger competitors, such as SIEMENS, ALSTHOM Power, FESTO or SANDVIG CZ, with modest means but with lots of ideas and excellent preparation!

Richard Sulko, General Manager and Sales Manager of ENSINGER, s.r.o.

Dignitaries gather for ENSINGER Ceremonial Dig

A ceremony was held on January 13th to mark the cutting of the first sod for ENSINGER's new construction at Parc Eirin, Tonyrefail. Company founder, Wilfried Ensinger, made the first cut into land on the site watched by chief executives, Klaus Ensinger and Roland Reber, members of the Llantrisant management team and dignitaries from the Welsh Assembly government, the Welsh Development Agency (WDA) and local borough council (RCT). Also at the ceremony were representatives from building contractors, architects, site agents, and from the property company. It was something of a relief that the weather on the day was fine and dry, and although it was very cold the

ceremony was blessed with a small amount of sunshine.

Following the ceremony, attendees made their way to the Vale Hotel, Golf and Country Club for a short buffet lunch where John Speirs and Wilfried Ensinger made short speeches to thank those people involved for their support in finally getting ENSINGER's new plant underway. As a final surprise RCT council leader, Russell Roberts presented Wilfried Ensinger with a mocked up road sign for 'Wilfried Way' which will be the name of the road leading to the new premises. This name for the road was suggested by John Speirs as a permanent tribute to Wilfried Ensinger to honour the company's continued investment in the area.



For questions and suggestions please send an email to impulse@de.ensinger-online.com

Impressum

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