

## Components for further growth

### ENSINGER builds new factories in Cham, Nufringen and Ergenzingen

[JF] New building projects dominated the news at ENSINGER in autumn: Extension of the factory site in Cham, purchase of a plot of land for an injection moulding plant in the Ergenzingen industrial zone, construction of a factory shop floor with a high rack warehouse at the headquarters in Nufringen. "We are making further steps with the new production and logistics buildings towards future sustainability for the production sites", Klaus Ensinger, General Manager, was pleased to report.



"Column christening" in Cham: Martha Ensinger gives the go-ahead for a new building project

#### Factory extension in Cham

In October the first concrete pillars were erected at the site in Cham for a new part of the factory for the Building Products Division extending over 16,000 square metres. The columns will ultimately form the basic framework for the extension building.

At the ceremonial "column christening", Wilfried and Martha Ensinger laid a document roll in the large concrete foundation and the Berlin architect Stefan Fehse closed the recess with cement mortar. Finally, Mrs. Ensinger broke a bottle of champagne – as at the christening of a ship – on the first reinforced concrete pillar. This denoted the official starting signal for the new building project.

In his welcoming address to visitors – including state councillor Theo Zellner and mayor Leo Hackenspiel – the factory manager Andreas Alsfasser said that ENSINGER has been successful with its flow of new developments. According to Alsfasser the forward looking modular form of construction used also match's these technical innovations. "It will allow us to react to market changes in the production of high-performance plastics with the greatest possible flexibility". Production was made the centre focus right from the start of architectural planning – according to the maxim "form follows function". The heart of the new factory is a fully automatic high rack warehouse in association with functionally arranged production lines. This concept allows production on two levels and hence better utilisation of the available shop floor area. By consistently orientating all departments to

the requirements of production, an optimum flow of materials with short order throughput times will be achieved.

Planned around the centrally arranged administration office, the ENSINGER factory in Cham will be clearly subdivided in future into the three divisions – casting, machining and building profiles. The new company building is to be completed in late summer.

#### New injection moulding factory in Ergenzingen

The demand for high quality injection moulded plastic products is increasing worldwide, for example, through the growing demand from the automobile industry. As room for expansion of the injection moulding division at headquarters in Nufringen is lacking, ENSINGER intends to move this business unit to a new location. The construction of a new factory in the industrial park Ergenzingen-Ost is to start this year. "We will be able to optimise production with an attractive new building and produce plastic parts efficiently for discerning customers", said Klaus Ensinger, justifying the decision for

the move. "At the same time, we will create enough free space in Nufringen for the development of the remaining divisions".

In order to find the right factory site for the injection moulding division, ENSINGER took a closer look at six locations in the vicinity of Nufringen. Only three plots had a suitable layout to accommodate the planned large production hall. "Many of our customers urged us to use a production facility on a single level with short distances, as this permits more rational logistics and materials transport", explained Reimar Olderog, who will also be head of the new injection moulding factory as divisional manager.

According to Klaus Ensinger, the 3.7 hectare industrial plot near Rottenburg am Neckar which has now been acquired was not the cheapest option in the surrounding area. But Ergenzingen offers further possibilities to expand, has good transport connections through its closeness to the motorway A81 and lies an acceptable distance from Nufringen. "Of course, we would have preferred to build the new injection moulding plant in the immediate proximity of Nufringen", the Managing Director added. "But the areas being offered were either uneven and of an unfavourable layout, or had considerable building restrictions".

There will be an architects' competition for the planned 17,000 square metre shop floor. "The objective of the tender will be to achieve a design which unifies economic and ecological criteria in an ideal way", outlined Wolfgang Schwab, Head of the Service Centre Plant Technology and Building Management, when describing the requirements of ENSINGER.

#### The first cut of the spade in Nufringen

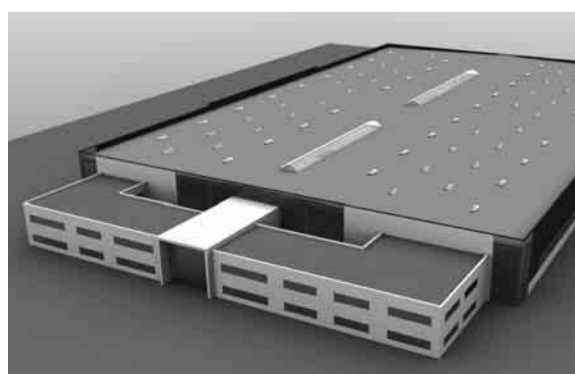
Before constructing the new injection moulding factory in Ergenzingen, ENSINGER will extend the site in Nufringen, as the new corporate business unit "Compounds" (see report on page 2) and the growing amounts of raw material require that the available capacity is extended.

Since the official ground breaking ceremony in November, to which the family company invited the mayoress of Nufringen, Ulrike Binninger, as well as the architects Siegfried Schmelzle and Michael Frey, the building project for a new factory building is well underway.

The 80 x 100 metre shop floor and more than 17 metre high hall, three quarters of which has been built with a basement, will have a useable surface area of about 7,000 square metres; 2,600 square metres will be devoted to compounding; the new raw material warehouse will cover



Ready, steady, go in Nufringen: Wolfgang Schwab (Head of the Service Centre Plant Technology and Building Management), Dieter Scharf (Head of Site Logistics), Ilona Brodt (Chairperson of the Works Council), Siegfried Schmelzle (Architect, Schmelzle and Partners), Ulrike Binninger (Mayoress), Michael Frey (Architect) and Klaus Ensinger, Managing Director.



Study of the possible design of the injection moulding factory in Ergenzingen. The model shows how the new building could look like.

4,300 square metres; 900 square metres are planned for administration. The semi-automatic warehouse creates the prerequisite in the new factory hall for efficient shipping handling of compounded materials. The first phase of completion alone will be able to accommodate more than 2,300 pallets in the narrow aisle rack warehouse. The flexible rack technology allows both raw material containers as well as three metre long shipping containers to be stored.

In this Issue:

#### Page 2

- Editorial
- New product line: ENSINGER COMPOUNDS

#### Page 3

- K 2007 Focus on value-added chain
- **Semi-finished Products Division**
- TECAPEEK CMF: Ceramic modification
- TECAPEEK ELS nano: Electrically conducting

#### Page 4

- Machining Parts in Shanghai
- **Building Products Division**
- Rapid insulbar prototyping
- Further languages
- MADE Expo in Milan

## Editorial



Dear Readers,

We are pleased once again to be able to present the latest issue of Impulse. The predominant topic at ENSINGER, which the title page is also devoted to, is the extensive expansion programme of building going on at three

locations in Germany: Cham, Ergenzingen and Nufringen. With these new buildings we want to allow for continuous, if sometimes erratic growth in several product areas.

For me it is a pleasing fact that we, as a supplier to classical German machine manufacturing companies and automobile manufacturers, as well as to internationally successful

system suppliers to the window and façade industry, were also able to grow – and for that reason in particular – in Germany. Our customers have put their competitiveness in an international environment to the test – and were able to further improve their positions. This also gives ENSINGER justified hope that we will be able to achieve further growth from our location in Germany.

The fact that upheavals in the international financial markets could also interfere with the manufacturing sector may be unavoidable. In the long-term, however, the demand for our products should continue, if we can further develop materials and services which also cover other aspects besides just technical improvements. Professor Engelbert Westkämper, head of the Fraunhofer Institute for

Production Technology and Automation (IPA), for example, is convinced that companies in our economic area have particular chances if they establish sustainable manufactured products and processes, in other words, improvements, which serve the environment, the climate and the social and personal well-being of customers and employees. Closed circuits which minimise energy consumption, offer user friendliness, collaboration between local companies and research institutes and also the internal binding and perspectives for all who are involved in this process, open up new possibilities to improve the range offered and to retain customers in Germany and abroad. In this sense, we are determined to continue further along our trodden path, even though this will

mean investing “anti-cyclically” in the face of turbulent world markets.

A further emphasis of this edition is the introduction of our new product line “Compounds”. We are very pleased about the good reception from the first interested parties and customers. We have made it our objective to use innovative and high quality materials and specialties also in applications for parts needed in small and medium-volumes. Our first impression is that we can satisfy a market need in this way.

I wish you enjoyment and lots of inspiration while reading this issue.

Yours sincerely,

Klaus Ensinger



## New product line: High-performance compounds and special formulations

[JF] ENSINGER has expanded its portfolio with a new product line. Since last year the corporate division, ENSINGER COMPOUNDS, has been providing external customers with tried and tested high-perform-



Polymers developed and modified by ENSINGER COMPOUNDS are used, amongst other things, in medical, automobile and electrical engineering applications.

ance plastics and compounds, which are tailor-made for specific applications with the help of polymers and material additives.

The granulate products developed by ENSINGER COMPOUNDS are

offered under the commercial name TECACOMP®. Hans-Peter Koch has taken over the management of sales and Frank Richter is responsible for production. “We wish to use our skills and competencies collected over the decades as the basis for further growth and establish ourselves in the market as problem solvers for plastic processing companies”, according to Koch.

ENSINGER COMPOUNDS offers specialties with an improved tribo-mechanical balance, products with defined electrical properties as well as polymers which satisfy medical technology requirements. Furthermore, special formulations can be developed with the customer.

Where tribo-types filled with PTFE may reach their limits, ENSINGER COMPOUNDS has found answers which allow longer life times and can thus contribute to lower costs. Plastics modified with carbon nanotubes to alter conductivity extensively retain their original properties thanks to the low doses used. Col-



Accurately:  
Modern equipment enables the division to respond quickly to customers' needs

oured injection moulding types, for example based on Victrex® PEEK and antimicrobially modified compounds are available for medical technology applications.

The structure of the company, the specialisation of the employees and the versatile machinery provide the flexibility to prepare small amounts, as well as material quantities for serial production. The extensive modular system, consisting of hundreds of combinations of possible materials and additives, permits the materials specialist to think both in terms of individual formulations, as well as in tried and tested standard solutions. Sample amounts of special compounds can normally be provided after a minimum two-week delivery period, depending upon the development work required.



Additive materials and polymers, as far as the eye can see. ENSINGER COMPOUNDS offer a rich variety.



To play it safe:  
Quality testing

Further information and a brochure can be obtained from

ENSINGER COMPOUNDS  
Division of HP Polymer GmbH  
Werkstrasse 3, A-4860 Lenzing  
office@ensinger-compounds.com  
www.ensinger-compounds.com

## Efficient value-added chain

### ENSINGER sets a new emphasis at the K 2007 trade show



Before the storm: The ENSINGER stand in Hall 5 with its neon columns, showcases for exhibits, bar and meeting rooms and a lounge on the first floor.

[JF] In October, the Düsseldorf plastics trade show K 2007, with its dynamic development reflecting global economic growth was able to attract many visitors to our branch of industry. Record figures were reported: displaying a broad range of innovations 3,130 exhibitors attracted 242,000 visitors, 11,000 more than three years ago with 57 percent of the guests coming from abroad. Whether in the raw materials field, in processing or machine production, all sectors of the world's largest plastics show gave the same impression:

a generally good mood, a brisk flow of the public and intensive negotiations. The leading trade show was the ideal platform for ENSINGER to set a new course as a globally acting provider of solutions. The main focus was placed on the value-added chain aligned to the requirements of the market. The versatility – from compounding to applications development – creates the prerequisites for the family-run company to be perceived by its customers not just as a supplier, but also as a development partner, which

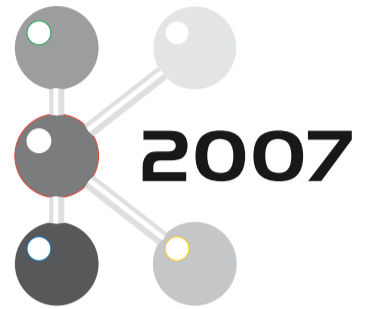
offers all processing options from a single source.

#### “ENSINGER solutions – YOUR success”

The trade fair stand, developed by the marketing department was presented under the slogan “ENSINGER solutions – YOUR success” in a new design. Marked by the strong contrast between the illuminated information columns and a blue-black background, which was visible from afar, the stand was also a little larger than three years ago. The corporate identity was also com-

pleted at the K 2007 with a supporting programme of events at which management and sales associates from all divisions were able to intensify customer contacts. The ENSINGER symposium, which by now has become a tradition, offered food for thought and research results for all who were on the lookout for markets, innovations and new developments in the field of high-performance plastics, so as to remain ahead in future against global competition.

The plastics world will meet on the Rhine again in three years (from 27th October to 3rd November 2010).



In discussion with customers: Alexander Stehle, Sales Associate Export Semi-Finished Goods (left).

## Semi-finished Products Division

### ENSINGER extends its product portfolio

ENSINGER has launched a new generation of technical plastics. The laminate material TECAPEEK CMF consisting of PEEK and a technical ceramic and the electrically conducting TECAPEEK ELS nano with the addition of carbon nanotubes are some of the highlights.

#### TECAPEEK CMF

Unique Properties  
Through Ceramic Modification

The continuing reduction of component sizes in semiconductor production has placed increasing demands on materials which will satisfy these high standards. Thin walled and miniaturised components require materials with a pronounced degree of dimensional stability and excellent machinability. With its new composite of PEEK and a technical ceramic, marketed under the name TECAPEEK CMF, ENSINGER fully complies with the exacting standards demanded by the semiconductor industry. The material's property profile is unique: due to its exceptionally low water uptake, it offers outstanding hardness and rigidity combined with excellent dimensional stability for very close tolerance. Proven and tested properties of the allrounder TECAPEEK, such as its outstanding thermal stability and good processability, have been retained.



Work piece holder made of TECAPEEK CMF – highest possible dimensional stability to satisfy narrow tolerances.

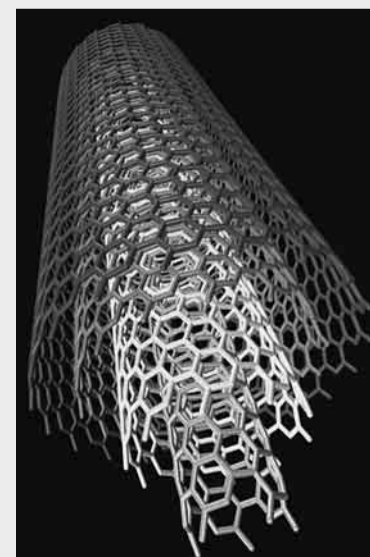
The incorporated silicate ceramic offers a high barrier effect to permeation by gases and liquids; the even distribution of ceramic discs throughout the material prolong the diffusion process of liquids and gases. TECAPEEK CMF is particularly suitable for use in semiconductor manufacture, for precision engineering and electrical engineering. Applications include test sockets and test-socket components, insulators, pressure bars and connectors. TECAPEEK CMF is available from ENSINGER in the form of stock rods and sheets.

#### TECAPEEK ELS nano

Electrically conducting material with nano-technology

The electrically conductive TECAPEEK ELS nano is an ATEX compliant and chemically highly resistant polymer, which ensures maximum safety in processes and plant thanks to these properties. The material based on TECAPEEK (PEEK) has been modified with the help of nano-technology: carbon nanotubes, which are used as functional fillers, have a high degree of electrical conductivity approaching very close to that of a metal due to their graphite-like surface structure. On account of the high specific surface, only a low degree of additive filling is required in order to adjust the electrical conductivity. It is thus possible to achieve virtually the same characteristic properties of PEEK, such as a high degree of durability and strength, with TECAPEEK ELS nano. Tried and tested properties, such as excellent chemical and thermal resistance, are also retained. This also ensures good further processability with minimal distortion tendency. The new material can be used in all applications where electrical conductivity and electrostatic discharge are required, eg. in mechanical engineering, safety technology, chemical and

process engineering, computer technology, transport and conveying technology, textile processing, vacuum technology, as well as in the aerospace industry. Examples of applications are components for explosion-proof plant or components for chip handling in semiconductor production, heat exchangers, chemical cleaning systems and pump casings. ENSINGER offers the material from stock in the form of rods and sheets.



TECAPEEK ELS nano: Electrically conducting material contains carbon nanotubes as a functional filler.



## Opening Ceremony with Chinese Lion Dance

### ENSINGER starts machining parts in Shanghai

Since last year ENSINGER also has its own representation in China with its new production site. On 20th November the start of part machining was celebrated together with customers, partners and staff in Shanghai. "The foundation of the ENSINGER Engineering Plastics company is a new chapter in the successful

growth story for Asia", said Dr. Roland Reber, who attended the event on behalf of the board of directors. The ceremony was characterized by Asian traditions, where the highlight was a classical lion dance. This is not only performed for the Chinese New Year celebrations, but is also considered to be a ritual at other important events that promote success and peace.

#### Modern production systems

ENSINGER has already profited for some years now from the increasing demand for construction and high-temperature plastics in Asia through the export of semi-finished goods and the cooperation with strategic partners. The company is now able to provide quality processed machined materials for the growing markets from the Shanghai municipality Songjiang, with the help of modern production systems.

Head of the new factory is Gary Davies, who also oversees machining in Great Britain – and is learning to speak Chinese. "Thanks to his experience, Gary Davies has been able to form a good team out of the enthusiastic staff in a short time", John Speirs, Managing Director of ENSINGER Ltd (UK) was pleased to report. Besides John Speirs and



Dong Ruxun, Martha Ensinger, Wilfried Ensinger, Gary Davies, Dr. Roland Reber and John Speirs (left to right) have planted the first tree at the new production site.

Larry Resavage, who is responsible for Business Development at ENSINGER Inc. (USA), Dong Ruxun has also been actively involved in handling this international joint project in Shanghai. Dong Ruxun continues to be responsible as Managing Director China for the activities of ENSINGER in the important Chinese market.

The address of the machining plant in Shanghai:

ENSINGER Engineering Plastics Co Ltd  
Unit C4, Jinxi Park  
Lane 180 Jinxi Road  
Songjiang Industrial Zone  
Songjiang  
Shanghai 201600, China

The team at ENSINGER Engineering Plastics, Shanghai, with Gary Davies (left), Site Manager, and Dong Ruxun (right), Managing Director China.



## Building Products Division



**Fully developed insulbar-prototyping – fast route to achieving sample profiles**

[Wey] When the new prototyping process for insulating profiles was introduced to the first customers three years ago, there was a high level of reservation concerning quality and the very short production time of the sample profiles. When the profiles were then supplied and tested in the agreed time, one thing was immediately clear: insulbar prototyping gives first-class results.

Numerous new developments have been provisionally tested in the meantime using insulbar prototyping and brought to the production stage. The time gained with the procedure speaks for itself. Whereas with conventional prototype production several weeks can pass before sample profiles are available, it is possible with insulbar prototyping to manufacture series-identical profiles with simple geometries within four working days.

Profiles with complex geometries, for example, hollow profiles, are possible within ten working days.

insulbar prototyping is usually accomplished in four process steps: The CAD construction of the extruding tool and the subsequent processing of the tooling parts are important to start with. There then follows the extrusion of the insulbar prototypes made of original ENSINGER TECATHERM material. A detailed quality inspection with subsequent preparation of a test report ensures process reliability of the sample profiles for the customer. All that then remains is to supply the profiles.

If you wish to have further information contact [insulbar@ensinger-online.com](mailto:insulbar@ensinger-online.com)



### From Eastern Europe to China

[Wey] The websites [www.insulbar.com](http://www.insulbar.com) and [www.thermix.de](http://www.thermix.de) have been experiencing a sharp increase in the number of visitors for several years now. Besides the range of always up-to-date information, the integration of other languages – most

recently Chinese in the case of insulbar® as well as Polish and Czech for Thermix® – has, of course, also contributed to this effect. The insulbar® website is now available in seven languages, the Thermix® website in five languages.

### Premiere: MADE Expo in Milan

[Wey] MADE Expo is the new and largest Italian trade fair for design, architecture and construction. Originating from the SAIEDUE exhibition, located in Bologna for the past 26 years, MADE (Milano Architettura Design Edilizia) offers an internationally attractive program at the new Milan exhibition centre Rho ([www.madeexpo.it](http://www.madeexpo.it)).

From the 5th to 9th February the ENSINGER business unit, Building Products presented its insulbar® product lines for metal window, door and facade construction and the whole range of Thermix® spacers and muntin bars.



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