

# impulse

**Issue 2/2012**

Employee and business partner magazine  
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Dear readers,



Have you noticed how often the phrase “according to the experts” seems to be cropping up lately? Stock market fluctuations, extreme weather events, quarterly balance reports or national budgets: there is always an army of experts on hand with an explanation. It does not occur to most people that we often have no idea who these experts actually are and whether they are even qualified to give an opinion on the subject. By quoting experts, journalists seek to satisfy our need for clarity in situations which are anything but clear. The authority and legitimacy of experts gives us the reassurance we seek, with very little success, as we are now beginning painfully to realize. But the fact is that the climate, the global markets, communities of nations and many of those things we laymen are at a loss to understand simply do not allow precise analysis or prediction. The confidence with which experts continue to dispense advice is actually astounding considering how ineffectual their analysis and their powers of prediction have proven to be over recent years.

This tells us two things in the main. Firstly that learning to understand the behaviour patterns and development of these different phenomena will take a lot of patience and perseverance. There will be surprises along the way, both good and bad. And secondly, that there are no quick fixes and that we should distrust anyone who promises us a formula that can untie the Gordian knot.

In the present phase of developments, estimating how the political and economic situation will unfold is proving particularly difficult. Being patient in this situation means continuing to have confidence in the future and to in-

vest. Practising patience also means getting used to new patterns of behaviour which can benefit us against this shifting backdrop. This applies to companies and their planning, it applies to political leaders and to solidarity within international communities.

We can be glad that both in the economic and the political world, there are players who are not looking for quick fixes but are prepared to go down a more sustainable but less popular route. They have already achieved a lot and they deserve our support.

It is gratifying to have the opportunity to witness such an example in close proximity. Allow me to draw your attention in this context to an employee whose contribution has received the recognition it richly deserves (page 7): Demonstrating exceptional integrity and entrepreneurial spirit, John Speirs has made a unique contribution to shaping our company. He has shown true vision in addressing customer and employee concerns and ideas which might not be convenient at the time but which will pay dividends in the future. And unusually, John Speirs is not discouraged by setbacks but understands the value of perseverance.

With very best regards,  
Yours,

Klaus Ensinger

**Imprint**

Employee and business partner magazine of Ensinger GmbH

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Publisher:  
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Editorial staff:  
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Title photo:  
Schlüter-Fotografie

Production:  
Druckerei Maier,  
Rottenburg

Compounds for the plastics processing industry

The road to achieving a tailor-made product



**Ensinger has also been providing compounds to the market for five years now. Although the corporate sector still belongs to the smaller divisions, the number of new developments is growing just as dynamically as sales. The following overview shows the key activities of the departments which are behind this success.**

**Material development**

Product development is concerned with improving existing compounds. Matthias Wuchter heads the team which develops special formulations according to performance specifications. Developers at Ensinger are mostly concerned with new applications, for which no suitable material has previously been available. In the structured product development process, practical extrusion or injection moulding trials alternate with sampling. The aim is ultimately to provide the customer with a product which is ready for volume production with the appropriate specifications.

Basic development work is associated with very time-intensive material screening and literature research. If everything goes well, a new product group will emerge at the end of the process, which can be marketed by the Sales team.

**Processing and application technology**

The Technical Centre, headed by Andreas Schmid, carries out the series of trials planned by the development department. The equipment includes laboratory extruders and injection moulding machines. During the course of product development, specialists make variations to the individual basic polymers, additive substances and processing auxiliaries or adapt technological processing parameters. Characteristic mechanical parameters, such as the rigidity and sliding properties, are tested on specimens we produce ourselves. Furthermore, thermal tests and colour tests are performed in the LAB colour space. In addition, application engineers – together with Sales and Marketing – advise customers on all questions concerning the processing of special compounds.

**Manufacturing**

Production, which is organised as a shift operation, is headed by Thomas Widmann. The machine shop consists of single-screw and double-screw extruders. The twin screws produce very intensive mixing of the basic molten plastic materials with auxiliary substances, which are added with the help of complex weighing and



dose metering systems. Special procedures such as hot die face granulation or underwater pelletizing are used for highly filled compounds. If agglomerate-free and foreign particle-free requirements are needed in special applications, a further melt filtration process is employed, which has been developed by Ensinger. This process uses sieves up to a mesh fineness of 20 µm.

**Project management and clean room production**

Corina Steck and team are responsible for handling customer projects. This also includes special product manufacturing, which is specifically adapted for a particular area of use. An important link between the technical centre and manufacturing is process technology, which transfers procedures from a trial scale to volume pro-



duction. Quality control procedures and extensive technical documentation are an essential component of these projects. A further major focus of work of this department is the production of highly purified materials used as implants. In order to compound these pro-



Loading station in the upper floor of the clean room

## Selected product groups

### Optimised tribology

Compounds with good sliding properties and low wear have proved to be useful in particular at high temperatures or under extreme mechanical loads. Amongst other things, self-lubricating and PTFE-free granulates are manufactured using mineral fillers.



### Detectable

In processing foodstuffs, safety always goes first. Magnetic fillers used in the product line TECACOMP® ID help to quickly locate fragments of broken components with the help of metal detectors as part of standardised process controls.



ducts, Ensinger has a clean room with both material and personnel locks (ISO 14644-1, Class 7).

### Marketing and Sales

Hans-Peter Koch is responsible for the strategic area of Sales and Marketing. Oliver Buchner heads the office-based internal sales staff, located at Ensinger's Austrian site in Lenzing. From here, the specialists and sales representatives follow up and support queries and customer projects throughout Europe. Due to the increase in demand, it is expected that the sales and marketing of Compounds will soon be expanded to other regions.

[JF]

### Contact:

office@ensinger-compounds.com



### Thermal conductivity

Components made of the TECACOMP® TC are thermally conducting. In high-performance electronics, these materials open up a new level of freedom in the design of more effective cooling elements and/or in encapsulating complete assemblies with a stable, thermally conducting casing.



### Lower density

Compounds filled with hollow glass microspheres (TECACOMP® LW) belong to the latest products in the programme. Thanks to their low specific gravity, these injection mouldable thermoplastics can save weight and costs in construction applications.

*“With difficult tasks, we can use our expertise to the full”*

### Interview with Dr. Oliver Frey

**Just a half-a-year ago, you changed from the international corporation 3M to the family run company Ensinger, in order to take over the management of the Compounds business unit. What impressions have you gained in the past months?**

I find Ensinger to be a very no-nonsense company, which is to do in particular with the short decision making processes. In my division, I have sensed a very high degree of self-motivation in staff right from the very beginning. Many employees bring with them fresh specialist knowledge from their training or from university – and a lot of energy.

Ensinger Compounds manufactures tailor-made products for special technical applications. Furthermore, your material science specialists are involved in developing new materials.

### Who initiates these projects?

Customer inquiries originate from all different areas of industry, from mechanical engineering to the food industry. We often start basic development projects in collaboration with public research institutes. Our largest in-house clients are the Semi-Finished Goods and Injection Moulding divisions. We not only work closely together with our Ensinger colleagues on a day-to-day basis, but also strategically. For example, we participate in cross-divisional innovation meetings, in which we discuss plastic modifications and technical applications. I consider this exchange very important – naturally, I have been shaped by my previous employer, who is known for its innovation culture.

### What makes the difference between Ensinger Compounds and other suppliers in the market?

Our multiplicity of production plants and qualified employees give us a high degree of flexibility: We not only compound large amounts for volume production, but also manufacture on the basis of individual formulations. Sales and marketing always “prick up their ears” when it is said “that is a niche and not many others can do this”. We not only have a broad range of extruders, but also the respective process technological know-how, i.e. our specialists know just the right settings to make when working with fillers which are particularly diffe-

rent. Thus, difficult orders are of particular interest to us, because then we can use our technical expertise to the full.

### Which are the areas where you expect to see the largest growth in future?

Internal and external customers have the same importance to us - we want to further expand in both of these areas. For this reason, further strategic development is most important to me. Parallel to orders, which we are entrusted with, we also specifically offer individual product groups from our portfolio in certain market segments. And there are already some signs of success: the volume of external sales is growing at an overly-proportionate fast rate.



*Before changing to Ensinger, Dr. Oliver Frey worked at several affiliated companies of the US technology corporation 3M. Already at his first job interview, he was told that he was not the “typical chemist”, and in fact Dr. Frey was able to take over different management tasks without any narrow scientific bearing after his start as head of the laboratory, for example, in business development or marketing. Within the scope of the Six Sigma programme, he was responsible amongst other things for a logistics project as a “Black Belt”. His last responsibility was as head of Application and Product Development of the fluoropolymer supplier Dyneon.*

*Dr. Oliver Frey has a daughter (14) and a son (12). The family lives in Gauting near Munich. The tennis team of the 45-year old division manager is also located there. [JF]*

**Girls' Day in Cham**

Once a year on Girls' Day, female pupils have the opportunity to try out what it is like to work in a technical manual trade. At Ensinger in Cham, ten female pupils from the business school in Waldmünchen received a one-day guided insight in practice. Under the leadership of Max Langlechner (2nd from the left), pupils produced various work pieces in the learning workshop. Personnel spokesperson Maria Unterstaller (left) informed about apprenticeship openings at Ensinger and gave the group a tour of the company. "In the county of Cham, the women's quota in technical occupations has increased in recent years", stressed Walter Hamperl (right) from the Department of Business Promotion at the District Administration Offices. One reason for this growth in particular has been the Girls' Day! [JF]



Photo: Chammer Zeitung

**Vocational choice****Introducing skilled occupations in the injection moulding factory**

In April, Ensinger welcomed a number of young people who are facing the choice of which career to go for to the works in Ergenzingen. In total, more than 60 pupils and apprenticeship seeking youngsters received information about the technical and commercial trainee and apprentice occupations offered by Ensinger. Friday afternoon proved to be an ideal time: in a relaxed atmosphere, the youth group and their parents were able to hold intensive discussions with trainees, representatives of the HR Department and specialist trainers. Furthermore, the visitors had the possibility to take part in guided tours of the works. The photo shows a station in the tool maintenance area, where Raimund Akermann (right) is demonstrating an injection moulding tool. [JF]

**More warehousing space****Move within Enköping**

Seven years after it was founded, Ensinger Sweden in Enköping has moved into a larger building. The old location had become too small for the increasing tempo at which large amounts of semi-finished goods were being turned over. Tripling of the office and warehouse space to 1,200 m<sup>2</sup> has now created the prerequisite for expanding the portfolio and will offer the eight-man Ensinger Team greater logistical flexibility. Customers will now have shorter lead-times to wait before their orders are filled – if desired, supply even on a just-in-time basis will be possible.

Ensinger already has a very strong position in the Swedish food processing and medical device technology industries. Nevertheless, Kent Åkerdahl, Managing Director in Enköping, sees further potential for growth in these key sales markets. "The move will soon pay off, as the improvement in supply availability will significantly strengthen our competitive position", Åkerdahl is pleased to say.

[JF]

**The new address of the Swedish headquarters is:**

Ensinger Sweden AB · Stenvretsgatan 5 · S-74940 Enköping · info@ensinger.se

**A warm welcome ...****Employees who have joined Ensinger:****Nufringen****Compounds**

Niyazi Yesilyaprak

**Semi-finished products**

Enzo Calabria

Vincenzo Grifó

Andreas Legel

**Industrial Profiles &****Tubes**

Silke Neukamp

**insulbar®**

Wannes Gennotte

**IT**

Nadine Polet

**Cham****Cast Nylon**

Richard Brandner

**insulbar®**

Jan Danger

Christian Mückl

Christian Schmidbauer

**Machined Parts**

Alexander Groitl

Michael Wanninger

Alexander Zwicknagel

**Ergenzingen****Injection moulding**

Ingeborg Böhmer

Stéphane Brugière

Christoph Neuffer

Onur Okut

Ramona Rotter

**John Speirs is now an "Officer of the Order of the British Empire"**

**Royal Award**

John Speirs has been named as an "Officer of the Order of the British Empire" by Her Queen Elizabeth II. In the recently published "Queen's Birthday Honours List 2012", it was announced that Speirs – who has been the Managing Director of Ensinger UK for many years – will receive the award for his services to "Advanced Material and Manufacturing in Wales". The nomination to "OBE" is the highest award in appreciation of the achievements of representatives of business in Great Britain.

Together with Wilfried Ensinger, John Speirs founded Ensinger Ltd. in South Wales in 1987. Speirs and two employees formed the core team of the British affiliate, which has experienced continuous growth over the last two-and-a-half decades. Through the purchase of Trig Engineering Ltd., Ensinger Ltd. has also achieved a leading market position in the field of precision machining. More than 250 staff members are employed at the seven British locations. After handing over the general management in Great Britain

four years ago, John Speirs took over other responsible duties as Vice President of Stock Shapes Asia in order to develop the Asian business for the semi-finished goods division. Furthermore, the Welshman is a member of the board of the Ensinger group.

[JF]



John Speirs OBE – Congratulations!



## A journey of discovery to the Neckar Valley

by Karl-Martin Hess



**Once again, Ensinger's Seniors met to take part in an organised outing together, which at the same time also shows how they still maintain close contacts with one another – even as retirees – and with Ensinger as a company.**

On 8th May, a total of almost forty people started out in the direction of Gärtringen by bus for an excursion to the Neckar Valley. Some of them, as Rolf De Lenardis, joined the company in 1972 and were active for more than 30 years. The oldest participant was Hans-Eberhard Stehle, who is almost 77 years of age, and our former head of purchasing. In brilliant sunshine, the bus took the group through Ludwigsburg and Heilbronn to Bad Wimpfen. There the “Neckarbummler” was waiting for us for a one hour boat journey downstream as far as Gundelsheim and back again. The silhouette of the old historic town centre of Wimpfen and the view of Castles Ehrenberg and Guttenberg as well as the “Götzenburg” Hornberg put us in the mood right from the start to enjoy the flair of the Middle Ages radiated by the town of Wimpfen, especially with regard to the Im-

perial Palace (Kaiserpfalz) which was built by Friedrich Barbarossa in the 12th century.

In the afternoon, a tour of the bird sanctuary which houses birds of prey at Guttenberg Castle was on the programme. It was impressive to watch how the falconer used a flight demonstration of sea eagles and vultures to provide a better understanding to participants of his work, which includes the protection and care of owls and birds of prey.

The successful conclusion to the day was the evening meal together in the “Kerzenstüble” in Gärtringen. Klaus Ensinger took time to inform the group about the current situation in the company and explain the current expansion plans. There was a lot of news for all participants. A wish was also expressed for a tour to be made of the company in the near future. A word of thanks goes to Ilona Brodt, who prepared and planned the excursion in the usual excellent manner. The participants are certain to remember this wonderful day for a long time to come.

### High level of productivity in Ergenzingen

In the extinguishing water tank next to the injection moulding factory, a duck is raising her young for the third time. This year, “Emma”, as she has been named by employees, has had to take care of 14 ducklings. The chances that all of them will survive are good: in many hours of work at home, Ensinger colleague Egon Strauss has also built a generously dimensioned duck “villa”! [JF]



## TECASINT improves hot glass handling

by Markus Edelbauer

**Polyimides can be used to increase productivity levels in the manufacture of glass bottles for the beverages, pharmaceuticals and cosmetics industries. The high temperature resistance and low thermal conductivity of these high-performance plastics offer major benefits for hot glass handling applications. Polyimides from the TECASINT product family are enjoying ever more popular use in the production of handling equipment such as take-out tongs and deadplates. These materials can be economically produced and help to reduce the rejects quota.**

Non-melting polyimides from Ensinger offer excellent long-term thermal stability. Even when heated briefly to temperatures of up to 480° C, many TECASINT materials will not soften. Even in continuous operation, they retain their characteristic strength, dimensional stability and creep resistance.

Manufacturers of perfume bottles and pharmaceutical glassware in particular make use of the graphite-modified TECASINT types in the 2000, 3000 and 4000 product ranges. Components produced from these materials are used for the unscrewing and onward transport of glassware at extremely high temperatures. Alongside extreme temperature resistance and low thermal conductivity, good resistance to abrasion and breakage is particularly significant for this type of application. Other key requirements imposed on materials used in glass handling are mechanical strength and minimal oil absorption.

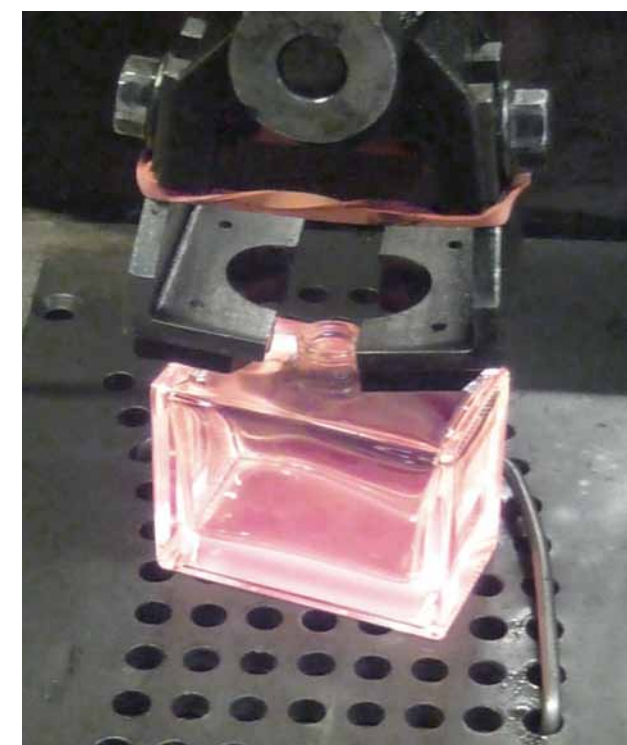
In comparison to graphite, the property profile of Ensinger materials offers a particular range of benefits. The low thermal conductivity of types 2032, 3032 and 4121 prevents the formation of microcracks in the glass which can result from thermal shock during the handling processes. The excellent abrasion wear helps to extend the life of the components, and the toughness typical of this material helps reduce the formation of fractures during handling and production. TECASINT's low oil absorption prevents the occurrence of print marks on the glass surface. Glass manufacturers also benefit from a reduction in the rejects quota and shorter downtimes, resulting in higher productivity.



The material lends itself very well to machining, but without the creation of dust typically expected when cutting graphite. This reduces the level of stress on the cutting machine and the amount of maintenance work required. For small batch sizes, moulded components produced from stock shapes are ideal. TECASINT 2000 and 3000 can be used to manufacture larger batch sizes, also making use of the more economical direct forming process.

More information: [ensinger-online.com](http://ensinger-online.com)

Markus Edelbauer, Product Manager, is in charge of technical consultancy for TECASINT polyimides at Ensinger.



The thermal stability of TECASINT 2032, 3032 and 4121 have proven value in the glass industry



Energy planning

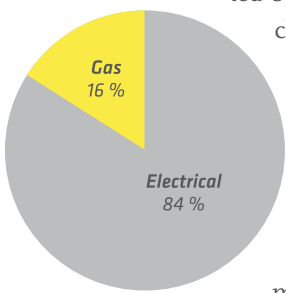
## The heart of the energy management system



by Karolin Bradtke, Environment, Health & Safety management

**As was reported in the previous issue of "Ensinger impulse", we have taken stock of the current energy management situation and this was concluded in spring. As part of the analysis of all energy data, it was possible to carry out an energy assessment: areas with high energy usage in the form of electrical consumption are machining and the foundry area, as well as extrusion and injection moulding.**

As a result, the most important use of energy is represented by the extruders, injection moulding machines, processing centres and moulding plants with the respectively associated peripherals, such as dryers, tempering lines and tempering ovens. These large energy consumers are the first point of attack, in which energy-related performance can be improved by specific measures.



Shares of electrical and gas consumption of Ensinger GmbH

Ensinger has formulated its energy goals as follows: The company plans to save almost a quarter of a million Euros in energy costs by approximately 2015. This target will not only be achieved by "low hanging fruits", i.e. measures with a low investment effort, but rather also by concrete improvements in the big energy guzzlers. For example, such measures include searching out and removing leaks of compressed air or special local thermal insulation. In order to measure the future savings, specific key data have been defined. In addition to the energy consumption, variables such as tonnage, material and time also have to flow into these key numbers.

Achieving energy goals will be carried out under observance of the legal provisions and other statutory requirements. For this reason, the department QUAS (Quality, Environment, Occupational Safety) has developed an environmental register, in which all energy and environmental laws are ascertained and evaluated.

Sustainability

## Integrated Management System

As part of the long-term introduction of an integrated management system, Ensinger has defined a set of its own basic principles for achieving sustainable actions. Environmental and energy policies were recently reworded anew. At the same time, the general management has passed an occupational health and safety policy:

### Environmental and energy policy

**Values**

Our responsibility for the environment motivates us to produce sustainably. We check the ecological impacts of our work in advance.

**Employees**

Protection of the environment is a task for everyone. So it is up to each of us to contribute.

**Dialogue**

In order to achieve our environmental goals, we provide staff with the necessary resources and generally provide information about advances being made in ecological programmes at regular intervals.

**Waste / emissions**

We work continually to reduce our waste and emissions.

**Dangerous substances**

Wherever possible, we substitute dangerous substances.

**Resources**

We reduce the consumption of resources continuously.

**Efficiency**

We permanently optimize our processes and products as well as our energy-related productivity.

### Occupational health and safety protection

**Prevention and avoidance**

We avoid hazards at the workplace and thus help to prevent occupational accidents.

**Working conditions**

We want to create humane working conditions.

**Continuous improvement**

We continuously strive to improve our performance in safety and health protection at the workplace.

**Training**

We carry out regular training of our employees in the importance of occupational and health protection.

**Legal conformity**

We observe, maintain and comply with our occupational safety specifications, company agreements and relevant legislation.



## Victrex football cup

### New edition after 10 years

The second Victrex football cup finally took place in Bolton / UK from 25th - 27th May. The long weekend was excellently organised. After landing in Manchester, twenty football enthused employees from Ensinger checked into their hotel in Blackpool, before enjoying a meal together with the German Victrex employees. A tour of the production facilities of the Ensinger supplier at their headquarters in Hillhouse was planned to take place on Saturday morning.

*“We would like to thank all participants for their hospitality and support. It was a unique experience to play in the Reebok Stadium in Bolton.”*

*Markus Killinger,  
Rottenburg-Ergenzingen*

The time available for preparation was only short at the high point of the trip:

The visitors went to the Reebok Stadium in Bolton – the home of the former Premier League Club Bolton Wanderers with seating for 30,000 –

directly from Hillhouse. In a long-lasting contested match, the Ensinger team was able to finally assert itself with a 3:2 win against the Victrex eleven. The VIP lounge of the stadium made a fitting background for the presentation of the cup, which will now find its place of honour in Nufringen,

until the next Victrex football cup takes place. The teams spent Sunday morning in Liverpool with a joint visit to the Beatles Museum, before the flight back to Germany – where both the entertaining and successful visit to our English colleagues came to an end.



Das Erstligastadion der Bolton Wanderers fasst 30.000 Zuschauer

## Tension-packed table tennis match ends in a draw

by Patrick Graf and Gerhard Zaiser



The table tennis team: Back row (from left to right) Gerhard Zaiser, Patrick Graf (both from Semi-finished products sales) and Christian Dannecker (IT); front row Steven Koltschak (Controlling), Stefan Schach (Purchasing) and Bernhard Haid (Tool making).

On 19th June, six Ensinger employees met with a team from the Rottenburg-based company Somfy for a table tennis competition. The initiative had been made by Stefan Schach (Purchasing Department), who was successful in motivating former and new colleagues for this sporting competition. Active club members and hobby players were represented in both teams. Many of the participants even knew one another from previous table tennis tournaments.

Both teams were similarly strongly manned. For this reason, a tension-packed neck-and-neck race developed in the sports hall in Rottenburg-Kiebingen. After the starting event – a doubles match – the Somfy team was ahead by 2:1. The twelve single games that followed resulted in six victories each for both Ensinger and Somfy. As the 8:7 result was not enough for the overall victory, a decisive double match had to be played. Here, the Ensinger team was able to gain the last possible point of the tournament and equalised to make the final score a well-deserved draw. The players spent the rest of the evening enjoying a cosy round of drinks (or two) together!