



Flexibility, Opportunities, Innovations

EDITORIAL

Dear Friends of BIW,

The New Year has started with a lot of new challenges the whole BIW team is happy to rise to. With its competence, wide range of technical services, and variety of customer-specific products, BIW also believes it is well able to cope with economic cycles which are getting shorter all the time and the higher demands of its customers regarding the magic triangle of competitive "prices", above-average "quality", and meeting tight "delivery deadlines".

BIW's self-imposed high standards stem from the company's technology centre, which has a test and measurement laboratory and a technical centre where a whole team of developers take care of our customers' requests. Compound development is often at the centre of things here. It is where a silicone product is made able to cope with higher demands in the place where it is to be later used than it would have been capable of when it first left the raw materials manufacturer as a basic silicone. It is for this reason that this edition of our customer magazine also focuses on the expansion of BIW's compounding department.

We hope you enjoy learning about our latest achievements and development trends.

Happy reading!

Ralf Stoffers

Dr. Markus Wiethoff



Along with classic company performance indicators like turnover, punctual and correct-quantity deliveries, the PPM quality level, productivity, and the proportion of rejects, there have been other target figures reflecting BIW's internal and external performance for many years. These performance indicators are still developing all the time and have done so more than ever since the integration of continuous and systematic improvement processes based on the Kaizen philosophy. Driven by the demands of the car industry, regulations of the medical and pharmaceutical industry, and last but not least, all our customers' expectations, they have become an integrated monitoring instrument for BIW. All the company's main target figures make up a SCORECARD which represents BIW's qualitative, logistical, and economic status, and highlights trends.

The current management review shows that BIW is almost completely "green" at the moment. All the target figures regarding quality, logistics, and economic

efficiency have been achieved, and many have been exceeded. The trends, i.e. the development of performance indicators over the last few years, show consistent improvement.

These positive results and trends will motivate us to provide our customers with the performance they desire in future as well and to respond to higher demands with continuous improvement in a determined and target-oriented manner.

When it comes to competence – BIW.



__ DR. MARKUS WIETHOFF


Compounding

THE MIX DOES IT!

Recognised BIW product quality based on in-house compounding

When BIW began producing silicone extrusions in 1971, it also started compounding at the Limperg Tape Weaving Mill's premises in Schwelm. This means that BIW was mixing the required components on its own authority right from day one – and doing it at a laboratory rolling mill. This laboratory rolling mill is still in use today and plays an important role, as it is where mixes are developed. Of course the compounding capacity has grown as BIW has developed, and over 3,000 tons of material are now mixed every year for extrusion, coating, and injection moulding, using flexible, effective, and high-quality techniques. The philosophy of in-house compounding has been lived out from the very beginning and is still being confirmed every day. This is the only way BIW is able to develop and verify product qualities on its own authority, reproduce products using reliable processes, and manufacture economically enough to sell products at market-driven prices.

The expertise hidden in BIW's formulations (there are about 5,000) can hardly be described. BIW's developers have always had the task of combining the right raw materials with the right concentrations in a way that guarantees the product qualities required for the application in question. This principle still applies today and, thanks to BIW's decades of experience in mixing technology,

enables the company to offer its customers constructive advice. BIW has developed into a trustworthy problem solver over the years, because in-house compounding means a foundation for the required product quality is always provided straight away. Regardless of whether a product has to be heat-resistant, flexible at low temperatures, tear-proof, mouldable, chemical-resistant, non-flammable, transparent, or coloured, BIW always has a solution or is able to develop one. This is evident from the company's vast array of compounds, many of which have been developed for specific customer items. As a proven service provider, BIW draws on its extensive wealth of expertise to develop an individualised solution for each and every problem it is confronted with, and each solution is optimised to meet the special requirements of the customer's intended use for the product as completely as possible. Of course there are also standard compounds which cover the basic qualities, but ultimately the right mix is needed to fulfil the vast majority of demanding specifications.

Mixes which meet certain general standards have been created according to these principles. Some examples of what these standards include are responses to fire according to rail and aviation guidelines, abrasion resistance and dielectric strength levels laid down in some



car specifications, and physiological qualities described in the German and US Pharmacopoeia and the German Food Law as well as in the FDA regulations. In-house compounding allows BIW to meet the specific requirements of each and every case.

Using the appropriate raw materials plays a role in compounding too of course. These include the basic types of silicone rubber available from BIW's raw material manufacturers, some of which are Wacker Chemie in Burghausen, Leverkusener Momentive (formerly GE-Bayer), the Bluestar Group, which is partly French and partly Chinese, and the global market leader, Dow Corning, which is headquartered in the USA. BIW has worked very closely with all its raw material manufacturers for years and regularly exchanges information with their experts regarding raw materials, improvements to the qualities of existing raw materials, and the interaction between these raw materials and other raw materials or certain environmental conditions. This cooperation is surely as valuable as it is practical, because it results in direct benefits for our customers in the long term. In addition to these raw materials, the basic silicone types, there is also the additives group, which includes various cross-linking agents, propellants for the silicone foam production process, batches of colours, heat stabilisers, and many more. Ultimately, only combining the right raw materials with the right additives will create the appropriate mix, which will only ever be made in BIW's compounding department.

The BIW compounding department, which is led by Oliver Braselmann, now consists of three large open rolling

mills and three conical twin mixers (CTMs), as well as the laboratory rolling mill mentioned at the beginning which has been used since the company was founded. These are modern mixing systems with an integrated, semi-automatic outfeed system. The CTMs produce significantly better mixing performance and are also less dependent on the machine operator thanks to defined mixing programmes. They therefore have the edge over the rollers in terms of productivity and reproducibility, but not every mix can be created by a CTM with the quality that is achieved by the rollers. Even small quantities are better when produced by the rollers. This means that it is actually the combination of rollers and CTMs which gives BIW the basic conditions it needs to constantly create the right mix with the requested quality level economically. The computer-supported weighing terminal, which weighs all mix components, makes complete charge traceability possible – in both directions, i.e. we're not just able to see which raw material batches a product was made from; we can also work out which products a particular batch of raw materials was used in. This too is one of the basic prerequisites needed for our many successful certifications according to current quality standards.

Regardless of what your requirements are, with a mix from BIW's in-house compounding department, you'll never have anything to worry about.

When it comes to competence – BIW.

— DR. MARKUS WIETHOFF

OLIVER BRASELMANN INTRODUCES HIMSELF



NAME: Oliver Braselmann

POSITION: Head of Compounding

TRAINING: Courses to become a plastics and rubber industrial technician, a technical business manager, and a DGQ (German Society for Quality) quality manager

INTERESTS: Engine-powered flight, gliding, and cyclo-cross

GOALS AT BIW:
To continue to develop the department in an environment which is growing dynamically. To develop and create customer-specific compounds that meet the individual physical and chemical requirements demanded of the finished products in the field they are to be used in – just in time.



Rolling mill



Laboratory rolling mill

BASIC AND ADVANCED TRAINING – THE FOUNDATION OF SUCCESSFUL STAFF MANAGEMENT

The successful certification of our staff management system according to the international standard "IIP – Investors in People" does not mean that we have finished setting up a systematic approach to support our staff. In fact, it's only now that many of the measures resulting from the interviews with our employees will start to really be implemented.

To make sure that all our employees are truly with us as we strive to become the market leader in the technology industry and to ensure their know-how as professional experts is incorporated in their respective work systems, the entire company has been divided into small work groups who consciously take a one-hour break from their work every week to take a look at areas they don't normally think about.

The discussions take place at the Kaizen meeting places set up in each department and area and focus on three main subjects:

- Training courses included in the company's basic and advanced training programme
- Current company information
- Continuous improvement in accordance with the Kaizen philosophy

The training courses are run by qualified internal experts who have many years of experience and who are part of the respective team they are training. The courses are split into "basics" (essential information, some of which is legally specified) and "experts" (special handling instructions for specific process steps). All scheduled training courses take place in the form of matrices in areas which can be accessed by anyone. This means they can be used to create tailored development programmes for individual employees.

The current information discussed at the weekly meetings generally concerns the targets of the respective area, trends which are affecting quality standards and any important feedback from the market or customers which is received by all the company's work systems.

BIW has worked with Kaizen methods on a regular basis since the middle of the 90s and is continuing to invest in continuous improvement and resolutely include all its employees in this as part of its staff management system. More specifically, this means that processes at the individual workstation ("gemba") are always being optimised and that standards are always being scrutinised. A "Kaizen newspaper" and "Kaizen meeting minutes" ensure that the weekly meetings are



efficiently prepared for and reviewed, and enable internal improvement suggestions to be implemented quickly.

Besides the basic and advanced training programme, there are a number of other new additions to the BIW staff management system. One example is the company health promotion scheme (Betriebliche Gesundheitsförderung – BGF), which allows each employee to have an individualised health programme worked out for him or her so that he or she is physically well prepared to deal with future demands. An emphasis on good and fair working relationships based on the basic conditions described in the new company agreement completes the activities BIW has introduced in the interest of the future of the company and the future of all its very competent employees.

— RALF STOFFELS

BIW AT MEDTEC 2013

BIW presented its portfolio especially for the medical industry at the 2013 **MEDTEC** trade fair, which took place from **26th to 28th February in Stuttgart**. Many interested visitors took the opportunity to learn a lot about BIW's wide range of products. Our new leaflet for the medical and pharmaceutical industry, which was very helpful here, can be viewed at www.biw.de.

Please don't hesitate to ask us if you would like development support with a new or an existing project. Our team of professional developers would be delighted to assist you.



Hall 2.2 | Stand 2027

CWIEME
 4-6 June 2013
 Messe Berlin **Berlin**

BIW AT CWIEME 2013

From **4th to 6th June 2013**, BIW will be showcasing its products at the **CWIEME trade show in Berlin**, the world's biggest exhibition for electromagnetic coils, electric motor and transformer manufacturing, rewinding, and electrical insulation. **We look forward to seeing you at our stand, which is stand 2027 in hall 2.2.**

IMPRINT

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to competence*