

GERMANY

KRAHN Ceramics: “Working with Customers to Open up New Applications”

In early 2020, KRAHN Ceramics became independent from KRAHN Chemie, a company in the Otto Krahn Group, setting out as an autonomous division. Besides investing in its Technical Centre in Dinslaken, the company has also installed its first in-house production line for ceramic feedstock. With this step, the company is moving its headquarters to the same location as its affiliate ALBIS and MOCOM – also companies in the Otto Krahn Group – at the Rothenburgsort industrial estate in Hamburg. The team around Managing Director Dr Stefan Stolz (SS) had stepped up three years previously to channel Krahn Chemie’s over 30 years of know-how in technical ceramics as KRAHN Ceramics. Focus here is on: powders, binders, process additives, compounds and services along the process chain. Today, KRAHN Ceramics is already established as an innovative producer and project partner for CIM, especially for compound development and production.

CA: You have very quickly invested in the expansion of your development and production capacities for feedstocks. What key needs of the market are you covering with your offer?

SS: Very diverse needs: these range from those of customers lacking their own in-house development capacities, the development and optimization of suitable binder systems (aqueous, solvent-based, catalytically or thermally debinded) to the development of customized compounds.

Our advantage is that, as a helping hand for our customers, we can realize this fast and flexibly and correspondingly implement customized solutions in line with individual customer requirements.

CA: How do the Technical Centre and production complement each other specifically?

SS: At our Technical Centre in Dinslaken, we can reproduce the entire process chain from mixing, compounding through shaping to debinding and sintering, and, if required, we can also machine the sintered components (finishing). If requested, we can, for example, adapt the compounds directly to the parameters of the customer’s tools. The new



Fig. 1
Dr Stefan Stolz

KRAHN Ceramics' Affiliate Companies in the Otto Krahn Group

Otto Krahn Group

Otto Krahn Group GmbH is the holding company of the globally active Otto Krahn Group. It defines strategic guidelines and at the same time takes on the role of a professional service provider to support Group companies with the development of successful and sustainable growth strategies. Overall, the family-owned Otto Krahn Group, which includes plastics distributor ALBIS, plastics compounder MOCOM, the distributor and processor of ceramic and metal powders KRAHN Ceramics, the KRAHN Chemie Group, and the recycling specialist WIPAG, is represented in more than 30 countries and employs a total of around 1700 people.

www.ottokrahn.group

ALBIS

ALBIS is one of the world's leading distributors of standard polymers, engineering plastics and thermoplastic elastomers. With technical know-how, a strong distribution network and a strong commitment to finding the best solution, ALBIS an independent distributor offers its customers one of the market-leading and most comprehensive product portfolios in the entire plastics-processing industry. With 24 locations worldwide and 500 employees, the Hamburg-based company has a strong presence in Europe, with a growing presence in the EMEA and Asia-Pacific regions.

www.albis.com

MOCOM

MOCOM GmbH & Co. KG, headquartered in Hamburg, is a globally compounder of thermoplastic polymers and offers the plastics processing industry a comprehensive product range of high-performance customized and standard compound solutions.

The high performance (Alcom[®], Tedur[®]) and engineering compounds (Altech[®], Altech NXT[®] PP, Alfater XL[®]) ranges are complimented by the Altech[®] ECO range of recylate based compounds which deliver Near-To-Prime properties. MOCOM supplies a wide range of industries including: Automotive, Electrical and Electronics, Home and Garden, Sports and Leisure, Transportation, and Healthcare.

As part of the Otto Krahn Group, MOCOM currently employs over 700 people with its headquarters located in Hamburg, Germany. It has production sites in three German locations (Hamburg, Obernburg, Zülpich) as well as in Duncan, South Carolina (USA) and Changshu (China).

www.mocom.eu

KRAHN Chemie

KRAHN Chemie GmbH has been working in chemicals distribution since 1972 and currently employs 250 people. Its core competences are sales, marketing and distribution of speciality chemicals and heat transfer fluids.

KRAHN offers its more than 5000 customers an extensive portfolio of high-quality products, technical services as well as in-house laboratory support and works closely with the international chemical manufacturers. They benefit from its target-oriented product marketing – utilizing deep knowledge of local markets. KRAHN supplies products to the following processing industries: coatings, construction, adhesives and sealants, plastics, rubber, lubricants, cleaning and disinfection, personal care, chemical intermediates as well as all industrial sectors in which heating and cooling circuits are used. It is headquartered in Hamburg. Subsidiaries and local sales teams are in Benelux, France, Italy, Poland, Greece, Sweden, United Kingdom, Spain, Romania, the Czech Republic, Hungary and China.

www.krahn.eu

WIPAG

WIPAG Deutschland GmbH is a specialist in the material processing of technical plastic waste, the development of recycling technologies and the production of plastic compounds, including those based on recycled fibers.

With innovative recycling technologies, the company prepares plastic waste streams that are reused as valuable materials in the products of the processing industries. Also included in the sustainable portfolio of WIPAG is the lightweight compound WIC, which is made from secondary carbon fibres.

Established in 1991, the company has more than 100 employees at two locations in Germany and has been part of the Otto Krahn Group since 2018.

www.wipag.eu

production facility supplements the capacities at our Technical Centre for the realization of relatively large projects and quantities in the CIM sector. We aim to reproduce the excellence in the process chain, and offer very reliable, high reproducible qualities. Our focus is currently on injection molding technology.

CA: *How far do your consulting services go?*

SS: No matter at which point they enter into the process chain, we stand by our customers as a technology and sparing partner for every step. Working together with them, we also open up new applications. Especially for customers who don't have any experience with ceramics and, on account of the special requirements for processing, don't necessarily want or are able to take on the production themselves. Besides product development, we also act as an intermediate in arranging the contract manufacturing of ceramic components.

CA: *From which sectors can you win over customers to ceramics?*

SS: In 2022, we took part for the first time at the world's leading trade fair for the plastics and rubber industry, that is "K" in Dusseldorf. It was strategically the right route to utilize the environment of our very established affiliates ALBIS (plastics distributor) and MOCOM (plastic compounder) at a shared stand. We want to get ceramic injection molding out of its niche and we met with great interest because ceramics can complement the injection molding technology proven in plastics sector in places where high-performance plastics reach their limits in many respects.

CA: *How do you support customers from this sector?*

SS: As our expertise stretches along the entire ceramic process chain, not only the selection of the suitable compounds is crucial for injection molding, the upstream and downstream processes are important even though there is less focus on these in plastics processing.

In all these steps, for example, in the selection of the suitable injection molding tools to debinding and sintering of the injection moulded components, we work closely together with the developers. So the range of services we offer is correspondingly wide.

For instance, we work as the producer of the ceramic feedstock and as a technology partner for the ceramic components. In addition, we can complement existing processes in the plastics sector, by developing thermoplastics with very high filling levels. Plastic-coated ceramics are also an extension of the application of already-known solutions, with which we can also provide support.

CA: *Will further steps follow for this market?*

SS: Yes, we want to make ceramics known in the plastics industry. For this reason, we shall strengthen our presence in this market and, this year, we are taking part at FAKUMA in Friedrichshafen, and plan to take part again at "K 2025" in Dusseldorf.

CA: *Do you also apply this know-how to powder metallurgy?*

SS: We are also active in MIM. Here, we are going even further into the niche market. We see our field in very special applications where new developments are needed, for



Fig. 2
Injection molded CIM component

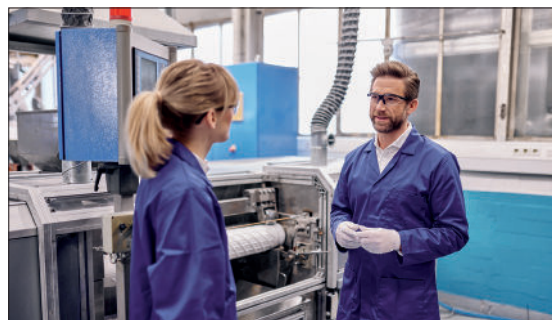


Fig. 3
Visible in the background: shear roller in the preparation of CIM feedstock

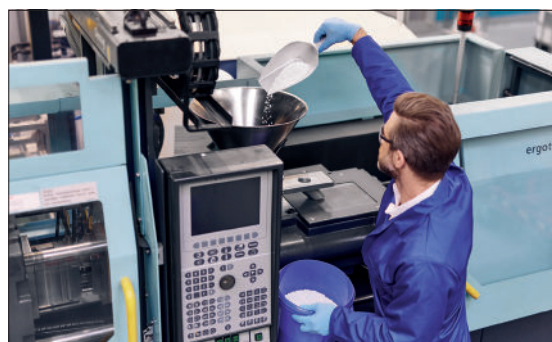


Fig. 4
Filling of the injection molding machine with CIM feedstock

example, to meet customer-specific requirements for the binder systems.

CA: *How have you planned the geographic expansion of your business?*

SS: The network of the Otto Krahn Group in over 30 countries worldwide serves as a basis for us here. In China, too, we are present as a group, and also active in CIM.

In focus for us is the US-American market in which we already have very good back-up from the group. At the beginning of May, we presented our entire portfolio for the ceramic industry for the first time at Ceramics Expo in Novi, Michigan.

CA: *Thank you for talking to us.*

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