

NORWAY

Elkem Changed Corporate Structure to Accelerate Specialisation

Last summer, Elkem/NO made changes to the corporate structure and top management. Elkem has now three business divisions: Silicones, a fully integrated silicones producer; Silicon Products, a provider of silicon, ferrosilicon and related specialty products; and Carbon Solutions, a supplier of electrode paste and speciality products to the ferroalloys, silicon and aluminium industries. Elkem Silicon Products is serving the ceramics and refractories industry with a broad range of microsilica, silicon powders and complementary products. We have asked Inge Grubben-Strømnes (IGS), Senior Vice President, for the new Silicon Products Division, a few questions.



Fig. 1
Inge Grubben-Strømnes, Senior Vice President for Elkem's new Silicon Products Division

CA: *What is the significance of the ceramics and refractory business to Elkem?*

IGS: Elkem pursues a strategy based on three main building blocks; operational efficiencies and synergies, specialisation and value chain optimisation and organic growth and acquisitions.

The Silicon Products Division accounts for some 40 % of our revenues and our staff. The ceramics and refractory business is a smaller, but very important part of this. Through process development and quality control, we have set the benchmark for microsilica and shown that high and consistent quality is needed to produce high-performance refractories. We work closely together with our customers and academia and will continue to grow the business this way. As part of this, we will continue to share and publish our findings to develop the industry further.

CA: *How do you evaluate the current business and its potentials in the main geographical areas?*

IGS: Despite the current pandemic we have been able to operate our plants and activities very close to normal. The global silicon market has been depressed but our other business segments have delivered solid result helping us through difficult times. The ceramics and refractory business is positive in all regions and we believe our offering of high quality microsilica and silicon powders in combination with specialty, complementary products as our SiOX- and Silgrain-range has a bright future.

We focus on close customer contact through our global sales office network and offer technical support, joint development and tailor-making. The main challenge is that we have not been able to keep as close contact with our customers as we want, and we can't wait to be out visiting them face-to-face again.

CA: *At the hydro-power-based plant Bremanger/NO, Elkem produces a wide range of standard silicon products and specialties tailored to customer needs. How is the product portfolio developed further?*

IGS: Silgrain® is a unique silicon powder developed to serve our valuable customers with high purity and stable quality. Silgrain® is today used in many high-end applications such as electronics, ceramic brake disks, diesel particulate filters, heating elements, body armour, catalysts, jet engines, coatings, batteries, etc.

Silgrain® is manufactured by Elkem Bremanger located in Svelgen, a small village by a fjord on the western coast of Norway. The plant was established in 1928 and is still in operation, due in part to the local availability of hydroelectric power. Sustainable production is important to Elkem and in 2020 the plant invested in new technology for the Silgrain® furnace giving a 40 % reduction in NO_x-emission, significantly higher silicon yield, improved energy recovery and reduced consumption of fossil carbon.

Tailor-made Silgrain® products are developed in collaboration with customers to give maximum performance and industrialised at the plant to give optimum production cost. We rely on a combination of testing with customers, but also have our own in-house laboratories with lab scale equipment to verify the benefits before shipping products externally.

CA: *Advanced ceramic components (e.g. made of silicon carbide, silicon nitride, SiAlON) have a wide range of applications and can still conquer new user segments. Do you see more opportunities for Elkem in the advanced ceramics segment?*

IGS: Definitely! Currently we have very important customers serving the automotive industry and a range of interesting customers and partners in numerous niche markets. The development cycle of advanced ceramics is very long, but we are in this market long-term. Through technical support, joint development and tailor-making we create value to our customers and work hard to be the preferred silicon supply partner.

CA: *What makes Elkem Microsilica® different from others in the refractory market?*

IGS: As one of the world's leading ferro-alloy producers in the 1970ies Elkem developed technology to capture, handle, store and utilise silica fume, commonly known as microsilica in the refractory industry. Huge investments were made in developing application areas of which refractories emerged as one of the prime candidates. Self-flowing castables requires high quality microsilica and Elkem Microsilica® has become the benchmark in the industry. We are not only capable of tailor-making silicon products, every day our production crews and scientists make sure that we produce microsilica of the highest standard. Part of our quality control procedures are actual testing in refractory castables.

CA: *During the last couple of years, Elkem has developed a range of complementary products for the refractory industry (SioxX-range, Emsil-Dry, etc.). What is the main reason for that?*

IGS: With our strong foothold in the industry we have seen the need for certain specialty products to further enhance refractory castables.

Since specialisation, value chain optimisation is one of the building blocks in our growth strategy this has been a natural development. But, our silicon powders and microsilica will still remain our "work-horses" for many years to come.

CA: *How does/did COVID-19 change the way of doing business in Elkem (internal/external)? Will we see long-term changes compared to year 2019?*

IGS: In general, COVID-19 has had the same impact on Elkem as most businesses. We have been planning more carefully, making sure we have raw material safety stocks, following up our supply chain, ensuring that we minimise the risk of infections spreading impacting production, and having a close dialogue with our customers to adapt to their needs. And as for most, travels have been reduced and communication was suddenly digitalized with people working from home offices if possible.

Going forward, I think the most certain longer-term change is that we will travel less. Travelling has high cost, takes up a lot of time and results in CO₂-emissions. I think this year has taught us that we don't have to travel to the same extent we previously thought. That being said, we can't wait to start travelling and meet our customers again.

CA: *Thank you for talking to us.*

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