

Germany

## Perspectives for Synthetic Aluminas in the Refractories Market

At present, the raw materials market for the refractories sector is very dynamic. We approached Almatís, who is a well known global player in the alumina business. Emre Timurkan (ET), CEO Almatís, was prepared to share with our readers his views. Emre Timurkan has over 20 years experience in the financial markets, having worked in commercial and investment banks globally. Joining Oyak, Turkey's largest pension fund in 2017, he was appointed CEO of Almatís in August 2017. Emre Timurkan also serves as a Member of the Oyak Executive Committee, Deputy Chairman of Oyak Anker Bank, and Member of the Board of Oyak Global Investments. He is a graduate of Georgetown University in Washington DC/US with a BSBA in Finance.



**Fig. 1** Emre Timurkan, CEO Almatís

**rwf:** *How do you comment on the current situation of the refractories industry, especially for synthetic specialty aluminas? What are the main challenges since you joined Almatís?*

**ET:** It was quite an exciting start into our business in August 2017, because within the first few months the alumina feedstock spot market price jumped by 30 % due to booming economies and shortages in the global supply chains. In addition, China environmental policy led to shortages for various raw materials relevant for the refractory industry.

The full year 2018 continued to be a very challenging time: alumina feedstock

markets showed all-time record volatility in March, the world's largest refinery Alumina do Norte do Brazil was curtailed by 50 %, and the US sanctions on Russia hit UC Rusal refineries in May. This put the industry under severe ongoing supply-side risks with some of the major feedstock suppliers. Driven by the alumina feedstock shortage and increases for other raw materials, energy, transport and labour costs, we faced a disproportional increase of costs.

The alumina feedstock spot markets showed all-time record highs above USD 700/t in April–May, and again in August–October, when at the beginning of the year it had pricing of less than half of that. At the same time, we experienced a stronger demand from the market than projected, which kept us busy in our plants and throughout the entire supply chain.

In the refractory market, we saw a higher demand for synthetic aluminas, driven by a very strong economic environment in all key refractory consuming markets, shortages of high quality natural refractory minerals and the increased focus on high performance lower cost solutions of the industry. Those new costs challenges coupled with a much stronger demand for specialty alumina from our core markets required change management and a new strategic direction to enable our organisation to effectively

implement its business strategy in response to marketplace dynamics.

**rwf:** *How do those industry challenges impact Almatís future strategy?*

**ET:** Almatís wants to be our customers first choice and partner in specialty alumina but also with new higher performance solutions. Driven by these latest market dynamics and to satisfy our customer requirements in the future, the company's key strategic goals are capacity expansion in the regions with highest growth rates and secondly, investment in more efficient process technology to keep our competitive advantage. Further, to implement a multiple feedstock strategy to gain more security and independence from single raw material supply and unpredictable price developments. We see investment in our people as a key differentiator to grow our technical and market leadership, and drive innovation in the future. We continue to strengthen our commercial and technical teams in all major regions to work more closely with our existing customers on new product solutions and to exploit growth opportunities into new markets and with value creating products beyond our existing portfolio.

Operational excellence is our underlying strategic objective supporting Almatís's pursuit of excellence and efficiency in processes by sharing best practice and expertise throughout the whole organisa-

September 25<sup>th</sup> and 26<sup>th</sup>, 2019 · EUROGRESS, Aachen, Germany

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tion. Our owner Oyak has been extremely supportive in all of these activities and provides significant funding to support these initiatives.

**rwf:** *What key industry trends do you see in the next few years?*

**ET:** Synthetic specialty alumina products like tabular, spinels, calcined aluminas and high alumina cements are high value raw materials for refractory formulation, representing only about 5 % of the total refractory material used today.

However, driven by the increasing volatility and uncertainty of raw material availability, we project that synthetic aluminas will continue to grow stronger compared to other raw materials in particular refractory applications. Secured sources of consistent high quality refractory materials will get a much higher importance. Many customers in high-value markets upgrade their formulations by moving away from natural minerals, which owing to their impurities, inconsistency and quality fluctuations do limit certain end-uses. This is particularly true for the China and India markets.

Our local technical teams work closely with the customers to share our alumina expertise on product selection and application knowledge. We have strengthened our technical support team, both in China and India, in order to assist our clients with the development of more value-added products. Also in well-developed regions like Europe, USA and Japan, specialty aluminas are a very competitive material for high performance refractory solutions, since the change of relative cost has developed in favour for synthetic alumina based refractory solutions.

Key refractory raw materials like sintered bauxite, graphite, zircon, magnesia, and brown fused alumina show increasing market prices over the last years by a much higher order of magnitude.

Other political and environmental factors, such as China's "Blue Sky" Agenda will significantly influence the overall market environment. Tariffs and non-tariff barriers might reverse globalisation trends, increase logistics cost, and influence the availability of shipping capacity.

We see additional growth opportunities for Almatris due to the technical developments in high quality steel production e.g.



**Fig. 2** Examples of applications for Almatris aluminas

for automotive applications. These require adjustments of the steel ladle lining. Apart from lining life and direct refractory cost, other aspects such as ladle capacity, impact on steel quality, and energy saving have gained importance in the "Total cost of ownership" approaches. We promote an alumina-spinel ladle lining concept based on synthetic alumina raw materials having improved cost performance compared to existing magnesia-based concepts.

Alumina is one of the most cost-effective synthetic materials. Alumina ceramics and refractory markets have a huge diversity of applications and still continue to grow with many new innovative products and solutions. Major growth drivers beside the typical refractory applications in steel, non-ferrous, glass and cement industry are environmental legislations in all major industries and the needs for solutions in critical and demanding applications in industrial processing and the electronic industries. Key success factors in this industry are cost-performance ratio and technology efficiency.

**rwf:** *What investments have you planned in Almatris to address future requirements?*

**ET:** Almatris is committed to specialty alumina products for the higher performance refractory and ceramics markets, but we are also looking into exploring opportunities in additional markets and new value-added products, targeted at helping our customers to improve their process performance and upgrade their quality. We will build on our experience and further upgrade our technology to reduce both our own and our customers' cost situation.

We realise that global demand for specialty synthetic alumina is growing at a faster pace than current capacity can keep up. In order to secure our customers' global

demand for specialty alumina products, our teams are working on a number of expansion projects across the globe.

Within the last few years, Almatris has been investing heavily in Asia, especially in China, and in early 2018 held a foundation stone ceremony for a new tabular plant in India to satisfy the demand of the major and strong growth regions. We assess additional investment opportunities in that region. But we also continue to invest in established regions like Europe and USA in expanding our calcines capacity and further processing of advanced and higher purity alumina materials.

**rwf:** *How does Almatris differentiate from other alumina suppliers?*

**ET:** With over 100 years of specialty alumina experience and very long-term partnerships with our customers, Almatris continues to invest in the business to ensure long-term viability. We are proud that Almatris is still the benchmark of our industry with the most comprehensive specialty alumina portfolio of synthetic aluminas, including tabular, reactive and calcined alumina, spinels and high alumina cements. Our global supply network with 10 manufacturing sites and application knowledge provided by local R&D and application centres enhances customers product performance and supports us in developing innovative products. We have 1400 skilled employees and the largest technical support team in the industry with true passion for our business.

We strive to be part of the problem solving for our end-user industries by actively initiating strategic cooperations and joint projects with our customers, creating win-win situations and contributing to sustainable growth with our partners.

**rwf:** *Thank you for talking to us.* KS