INTERVIEW



Dr. Charles Compson, Chief Commercial Officer, Almatis speaks about global alumina market, opportunities offered by India and the company's plan to address the emerging market challenges.

IM: What is your opinion on the current and future global refractory minerals market especially India and China, both from the supply and consumption sides?

CC: The global alumina market is undergoing significant transformation, with India and China playing pivotal roles on both the supply and consumption fronts.

In India, the economy is growing at an impressive pace, making it a key growth market for Almatis. The Indian government's "Make in India" policy is expected to further accelerate this momentum, enhancing both supply and demand. India's rapid urbanization and industrial growth are driving up demand across multiple sectors, especially the automotive industry. As the world's thirdlargest heavy truck manufacturer and the fourth-largest car manufacturer, India's passenger car market is projected to reach about \$55 billion by 2027. Moreover, India's electric vehicle (EV) market is set to gain significant traction, becoming the third-largest by 2025, after North America and Europe. These factors will inevitably lead to a surge in demand for refractory materials, particularly those produced domestically.

China, on the other hand, continues to be a global superpower in refractory minerals production. Even today, India is highly dependent on Magnesia sourced from China, and the lack of domestic resources will likely continue this trend. On the other hand, as of 2023 India was the fourth biggest alumina producer in the world and is only projected to grow. They will likely become a top-3 producer in the future. India's current attraction to and sourcing strategy for alumina-based Chinese refractory mineral is strongly related to cheaper short-term export offerings, rather than lack of high-guality domestic supply. The Chinese domestic market slowdown together with world-leading alumina production capacity results in suppliers' desire to backfill via export opportunities. While the make-in-India policy was developed to ensure sustainable and long-term growth of the Indian manufacturing base, this can be achieved only through supporting local producers committed to the Make-in-India policy, such as Almatis domestic tabular production and the recently announced white aggregate expansions across the Country. Without a true shift to sourcing raw materials/products made in India, the Make-in-India policy will be built on a foundation of raw materials made

in China, as has unfortunately become the case for many other industries within the Western world.

In China, while the market and local competition strongly attempts to commoditize the pricing of certain grades of alumina, there is a growing demand for more specialized products. For example, the Asia-Pacific semiconductor market, including India, is expected to maintain a robust double-digit growth rate in the coming years. Additionally, despite recent slowdowns, China's EV and battery production remains strong, further fueling demand for higher-purity and customized aluminas. In this market, Chinese brands are also making significant inroads globally, requiring advanced alumina solutions for high-quality applications. These trends are likely to increase the need for specialty alumina products, especially for refractory and technical ceramics.

At Almatis, we are well-positioned to meet the demands of both markets. Our Tabular Alumina plant in Falta, which has been operational since 2020, witnesses consistently increasing demand for high-quality tabular alumina. In China, we've been producing Almatis Tabular Alumina since 1998 for the local market, and our Qingdao facility recently commissioned an expansion into magnesium aluminate spinel aggregates and is set to expand significantly with a new calcined alumina plant opening in 2026. Together, these two investments will strengthen our global footprint, market leadership position and contribute in a large way to each of those local economies.

IM: We hear that the European market is slowing down. What is your take on the matter?

CC: While it is true that the European market has slowed down recently, I believe it is undergoing a profound transformation. Europe is poised to become the green center of the global economy. The regulatory push from the European Union and individual governments towards a green industry, green steel, and sustainability will redefine the region's industrial landscape. Implementation of the Carbon Border Adjustment Mechanism (CBAM) has the potential to transform the European industry as a benchmark to the world if transparency and third-party verification of carbon accounting is enforced. Aspirations about a unified carbon footprint value for an industry segment or for a specific product category will not adequately fulfill the

intention of the CBAM unless those values accurately capture the impact of Scope 3 emissions. Almatis believes and is prepared for a European market that will reemerge as a hub of green consumption. Only companies that are truly committed to sustainability and carbon footprint transparency will make this happen.

At Almatis, we are preparing to meet the demand for green materials in Europe. Our two production facilities in Europe are already focused on sustainable manufacturing. Our Mission Neutr*AL* program is central to this effort, and we are committed to contributing to a greener future by supplying sustainable raw materials. Our innovation team has launched multiple new products with sustainable advantage and reduced carbon footprint, like Low Carbon Tabular & Calcined Aluminas and ECO-TAB[®]. These products are not only designed to reduce our environmental impact but also help the value chain to control their Scope 3 emissions.



IM: What measures Almatis has taken in recent times to reduce carbon footprint?

CC: Sustainability has long been at the core of Almatis' operations. In 2020, we consolidated all of our sustainability initiatives under the Mission Neutr*AL* Sustainability Program. This program goes beyond sustainable manufacturing practices; we aim to deliver the lowest CO₂e products in the industry. Moreover, we are committed to developing products that help our customers reduce their carbon emissions during production. As I mentioned before, our ECO-TAB® and Low Carbon Tabular & Calcined Aluminas and higher-purity Calcined Aluminas for advanced ceramics support our customers in achieving their Scope 2 and 3 carbon emission targets.

Additionally, we provide 3rd party verified CO₂ equivalent values to customers who are keen on reducing their



Fig. 1

environmental impact across the value chain. Our vision, "Innovate Alumina and Beyond for Tomorrow" reflects not only our goal of sustainable growth but also our commitment to a sustainable future for the planet and future generations.

Our global operations, spread across various countries with different environmental regulations, face unique challenges. However, all of our production facilities are equipped with state-of-the-art technology to meet local emissions standards for CO₂ and other harmful gases. Our new plant in Falta exemplifies this focus on sustainability, and our forthcoming calcined alumina plant in Qingdao, China, will set an industry standard with its environmental focus. Our engineering technology and operations teams share best practices and improvement ideas internally and handle numerous sustainability projects simultaneously around the globe. Improving the thermal efficiency of primary operations through refractory and cooling improvements, capture and reuse of waste radiant heat from our primary operations, recycling of wastewater streams, implementation of heat-pumps for efficient energy savings in our plants, and sourcing of green electricity and biofuels to reduce carbon emissions and product carbon footprint are just some of these global practices. We aspire to be a benchmark in the industry with our operations and our products.

IM: Overall how do you see the overall aluminous mineral supply across the world?

CC: The steelmaking industry is undergoing significant

transformation, driven by rising material demands and a growing focus on sustainability. Almatis has been actively involved in public-funded projects in collaboration with other industry players to create refractory solutions that support greener steel production. One promising avenue is the use of refractory solutions in Direct Reduced Iron (DRI) steelmaking, which offers a substantial reduction in carbon emissions as a viable alternative to traditional blast furnace methods.

As hydrogen continues to emerge as a cleaner process in steel production, the demand for alumina is expected to increase even more than current levels. Additionally, we are witnessing a trend away from basic refractories towards acidic ones. The shift to high alumina raw materials, replacing magnesium oxide-based options in these new processes, presents significant potential to lower the carbon footprint of both refractory producers and end users, such as the steel and glass industries.

Furthermore, the gradual move from brick-based to monolithic refractory linings presents another opportunity to reduce CO2 emissions. Almatis' extensive experience and comprehensive product range, tailored to refractory applications, are well-positioned to support these industry developments and meet the innovation needs of our partners.

IM: Thank you very much for talking to Indian Minerals.

CC: Most welcome.

