

Germany / USA

Sense of Proportion Identifies Chances in Difficult Times

The financial crisis that erupted in October last year is having an increasingly severe impact on, for example, the refractories and technical ceramics sectors. A big threat comes from the rapid decline of the automotive industry, which has also taken the sub-supplier industries down with it. The premium alumina supplier *Almatis/D* cannot escape these difficult market conditions, but is looking to capitalize on opportunities that even the strained global market now offers. *Leslie M. Power (LMP)*, Vice-President Commercial Refractories at *Almatis*, commented on the current situation. She has been in the alumina business for 28 years with *Alcoa/Almatis*. She earned her Bachelor of Science in Chemical Engineering from West Virginia University and started her career as a process engineer at *Alcoa*, the previous owner of *Almatis*. Throughout the years she has been assigned responsibilities in technical sales and marketing and business development in the refractories, ceramics, polishing and activated alumina divisions (the latter now a business owned by *BASF*). Up until 2004 *Almatis'* activities were aligned in *Alcoa's* World Chemical division. *Almatis* is now owned by *Dubai International Capital LLC (DIC)*, the international investment arm of *Dubai Holding*. *Leslie M. Power* continued her career with *Almatis* and took over global responsibility as Vice-President for Commercial Refractories in July last year. She lives in Pittsburgh, PA with her husband John and daughter Alexandra.

rwf: Besides applications in the steel industry, what are the most relevant user segments for high-end refractory products based on premium alumina formulations?

LMP: User segments for high-end refractory products include petrochemicals, energy, glass, cement and other industrial metals (e.g., aluminum and copper). Refractory raw materials such as our premium alumina go

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into these user segments as well as segments in the technical ceramic and polishing markets, such as spark plugs, wear plates, chinaware, ceramic rollers, etc. Of course, steel is the main consumer due to the demanding process conditions in this industry. Steel is also the driver for innovations in the refractory industry, which are subsequently used by other industries.

rwf: The decline in building construction and the automotive industry hit, for example, the steel, non-ferrous metal and cement industries. Consequently, utilization of the installed capacities was reduced. It is expected that the maintenance cycles for re-



Fig. 1 Leslie M. Power,
Vice President Refractories of Almatis

fractory linings and components will also be reduced accordingly. Do you think that top-end refractory products will be replaced in part by commodities as the demands on product performance fall in a less crucial working environment?

LMP: We do not expect that considerable volumes of top-end refractory products will be replaced by commodities, even if the maintenance cycles do come down. The performance gap between synthetic high aluminas and other materials such as andalusite, bauxite or brown fused alumina is too big for a simple replacement in existing refractory products. Whether a top-end refractory product can be replaced by commodities at all, ultimately depends on the end application. For sliding gate plates or high-performance pre-cast shapes, such a replacement is technically not feasible. If lining concepts are downgraded to commodities, the purchase price for the linings will go down but the specific refractory cost will increase in most cases, so ultimately it is not cost effective. The development of steel ladle linings is a nice example here. In spite of higher material prices, synthetic alumina-based lining concepts have been proven to incur lower

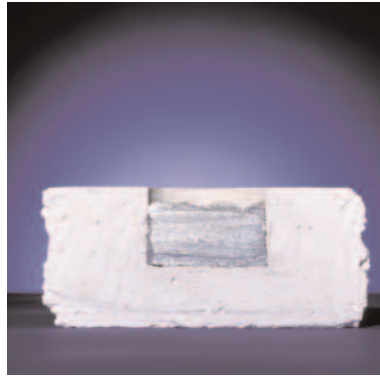


Fig. 2 a, b Dense calcium hexa-aluminate BONITE product line

specific refractory costs when compared to traditional lining concepts based on andalusite or bauxite; even in times when the production conditions were less challenging.

rwf: *What are the opportunities in the refractory business in the "days after" the present crisis?*

LMP: Without knowing when the world will recover from the present crisis, we can still predict with certainty that Asia shows huge potential for premium alumina products in the long run. Urbanization will continue to

drive the industries that consume refractories and this will not stop, even with the current crisis. The awareness of *Almatis* premium aluminas is improving in China and India as the customers experience the benefits of these cost effective materials. Usage rate of synthetic high aluminas per metric ton of steel in these countries is less than 50 % of what we see in the western world. We anticipate this gap will close, thus creating a very large volume opportunity for *Almatis*.

rwf: *Against this background, will Almatis*

be in the position to continue the huge investment of approximately US\$ 50 million at its Qingdao plant in China for the production and processing of calcined specialty alumina products?

LMP: The drop in demand resulting from the financial crisis has not changed our plans to invest in a calcined alumina plant in Qingdao. What has changed is the time line. We still see a very bright future for synthetic aluminas in China and the rest of the world. Our two calcined alumina facilities in the USA and Germany do not have enough capacity to handle the future global demand and we view this investment as a strategic necessity.

rwf: *What are your mid-term estimates for the markets by region after the financial crisis?*

LMP: Economists from around the world have predicted the economic slump continuing for anything from 6 months to 1 year, with a full recovery being several years from now. At *Almatis* we are hoping for the best, but preparing for the worst. At present, we are scaling back capacity to match supply with demand in all regions of the world. For

What can Sense of Proportion mean in Difficult Times?

Statement from *Martin Laudenbach (ML)*, CEO *Almatis*



Fig. 3 Martin Laudenbach

Martin Laudenbach was also prepared to comment on the difficult start-up period this year. He relies on the systematic follow-up of long-term strategies set at *Almatis*

and the wise policy of a sense of proportion in times when risks and chances lie quite close together.

rwf: *How are you aligning the company's operations in times when business developments are so difficult to forecast?*

ML: It was in fact not easy projecting the budget for 2009. The international business news now has a much shorter half-life and visibility going forward is minimal. We took our time to prepare different scenarios and assess our options. Today it is more important than ever to ensure maximum flexibility, in order to maintain the capability to respond quickly to market changes. It would be absolutely wrong to collapse in panic or be extreme in handling the current situation. We have already made sure that our production facilities operate as cost-efficiently as possible at the reduced volumes while above all assuring our premium quality. In

the development of these concepts, our goal is to be able to react fast when the market recovers. In this regard I prefer the philosophy of the Chinese language that combines the characters for risk and opportunity to make the word crisis. We must focus on drawing the right conclusions from this unprecedented situation. We shall continue to systematical pursue the strategy we devised over the last two years, which is geared towards long-term and sustainable growth. At the same time we are using these difficult times to catch up on some homework we did not find the time for during the boom. For me, a level-head approach based on a sense of proportion is the guiding principle for our business today. Now, more than ever, we need our creativity, a thorough analysis of the options and the courage to make sound decisions even in the face of such uncertainty — we certainly can't afford any mental laziness.

the mid-term, Asia will certainly remain the growth engine for our business, to meet the increasing demand associated with the market development there. The trend towards improved technology will continue to progress in China, India, Russia and Brazil. Their improved technology demands our premium aluminas.

rwf: *What are the "hot topics" at Almatris with regard to innovations in the refractory segments?*

LMP: In recent years *Almatris* has introduced several innovative products that show very good potential. As an example, our E-SY alumina-based concepts for easy workability of castables, pumping and shotcreting have been well received in the refractory market and are growing steadily. The new tabular alumina coarse sizes 6–15 mm and 10–25 mm as development products offer interesting potential for improving large pre-cast shapes or steel ladle bottom linings. These products also enable cost savings because coarse castables require less expensive matrix fines. The dense calcium hexaaluminate BONITE is used for new developments in aluminum and glass refractories and has proven performance advantages. Thanks to its low thermal conductivity, it is also being considered as permanent lining in steel ladles to reduce energy losses and steel shell temperature. Lastly, *Almatris'* new temperature-independent cement CA-470 TI is being tested by customers all around the world and first industrial trials are underway. We are really quite excited about the positive global responses we are getting on these innovations.

rwf: *Almatris sells it lion's share of premium alumina products to the refractory industry. Is Almatris now concentrating on further developing the technical ceramics and polishing segments to be less dependent on its refractory business?*

LMP: We have strong efforts underway to grow all segments of our business. These include refractories as well as ceramics, polishing and specialty hydrate markets. It is true that sales to the refractory market currently make up the largest share of our business. This may continue to be the case as there are opportunities for new products with our current customers and new opportunities for current products with new customers in emerging market regions such as China, Brazil, India and Russia.

rwf: *Almatris buys in smelter grade qualities. Will the shutdown of Alcoa smelters, e.g. the Rockdale smelter, have any effect on your supply contracts?*

LMP: It seems that *Alcoa* is optimizing its global system to balance supply and demand in the most profitable way. We don't expect any impact from the closure of the Rockdale Aluminum Smelter or other decisions within *Alcoa* on our long-term alumina supply agreement.

rwf: *In the years 2007 and 2008 Almatris had to make some steep price increases as a consequence of the shortage in high-quality alumina products caused by the booming refractory user segments. With the demand trend reversal, is there now any chance that your customers might enjoy better pricing conditions?*

LMP: As evidenced by our recent customer satisfaction survey, our customers want cost-effective raw materials that offer value to their business. Cost effectiveness includes quality product, service, availability, reliability and price. *Almatris* has a track record of being a cost-effective supplier to the refractory industry.

Over the past few years the industry has seen unprecedented growth in all regions, which quickly led to availability problems for major refractory raw materials. As the leading investor in the premium alumina business, we have invested about US\$ 100 million over the past few years to keep up with the demand for our products. Even with this commitment, we saw most product lines sold out by early 2008. We clearly underestimated the growth or we would have added more capacity sooner.

Now the drop in demand has given us some breathing room, but it does not change the fact that over the past two years we have also experienced significant cost increases in our operations. These include feedstock, transportation, energy and labor. Yes, we have found it necessary to pass price increases onto our customers. That said, I believe the customers see the value in our products and would still consider *Almatris* a cost-effective supplier. In fact, with the skyrocketing increases for calcined bauxite and brown fused alumina coupled with the longer-term availability issue, many customers are looking at upgrading their formulations to use synthetic high aluminas as a more cost-effective solution.

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

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