

R4.2bn titanium dioxide plant on the cards

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Nyanza Light Metals, a company jointly owned by Arkein International and Evraz Highveld Steel and Vanadium, said it would build a R4.2bn titanium dioxide pigment production plant in SA, following a favourable prefeasibility study.



SA ranks second to China in titanium reserves, having a little more than 16% of the world total. But historically, the country has focused on exporting titanium slag and sands in their primary form and then importing value-added products.

"A definitive feasibility study would be start later this month," the company says. "The plant would be the first major project for Nyanza in SA," it added.

Very little downstream beneficiation of titanium is done in SA, or in the rest of Africa, which "makes no sense", according to Donovan Chimhandamba, chief executive of Arkein, and chairman of Nyanza.

The prospective plant will process about 200,000 tons a year of waste slag from Evraz Highveld, producing about 50,000 tons of titanium dioxide pigment.

Arkein International is a Mauritius-based industrial investment company actively seeking projects in SA, Zambia and Rwanda. Its focus is on attaining businesses in Africa that beneficiate minerals.

Beneficiation has been touted by SA's government as a key jobs driver for job creation and growth and as a means of rejuvenating SA's struggling manufacturing sector.

Recently, the state implemented a research and development tax incentive to help firms that beneficiate raw materials.

Study looks promising

Chimhandamba says the prefeasibility study showed a rate of return of 32% for the project. The definitive feasibility study would cost a R50m and would take at least 18 months to complete. Depending on the results, construction on the plant would begin soon after that.

He says the plant would most likely be built in the Richards Bay industrial development zone in KwaZulu-Natal.

Titanium dioxide pigment is the most widely used "white pigment" in the world, accounting for about 70% of the pigment market. It has opacifying (making transparent materials opaque) and whitening capabilities and is found in industrial processes involving coatings, cosmetics, foods, papers and plastics.

Global annual demand for the product is estimated to be about 5.3m tons, with the industrial coatings sector using more than 57% of the pigment.

Evraz Highveld operations in Witbank (eMalahleni) produced about 700,000 tons of slag, which contained up to 33% titanium. The plant had more than 40m tons of slag left over from its historical steel-making operations, allowing it to provide a constant source of raw materials to Nyanza.

"The project embodies Evraz's strategy of maximising mineral value extraction from its mined ores and any generated waste slag," Evraz's chief executive Mike Garcia says. "Up to now, most pigment producers have relied on rutile and ilmenite as the main feed sources of titanium dioxide," he says.

"With stricter environmental regulations for mining beach sands, and advances in mineral extraction technologies, waste slags have become a viable, low-cost source of titanium dioxide," Chimhandamba says.

But he adds there are challenges around managing the rand's weakness against the dollar, and managing volatile labour situation in South Africa where labour costs are comparatively high.

Source: Business Day via I-Net Bridge

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