Heidelberg Materials

Press Release

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Scaling up low-carbon clinker alternatives: World's largest calcined clay plant in Ghana starts production

- **Joint venture partners Heidelberg Materials and CBI Ghana Ltd have completed the construction of the largest industrial-scale flash calciner for clay worldwide**
- **The installation, with a capacity of more than 400,000 tonnes of calcined clay per year, is already operational and supplies the raw material for calcined clay cement**
- **Replacing traditional cement clinker with supplementary cementitious materials (SCM) such as calcined clay is a crucial pillar of Heidelberg Materials' decarbonisation strategy, and the project will serve as an important blueprint for the global advancement of SCM**

In a joint venture, Heidelberg Materials and CBI Ghana Ltd, a leading Ghanaian cement manufacturer located in Tema, Ghana, have completed the construction of the largest industrial-scale flash calciner for clay worldwide. The installation has a capacity of more than 400,000 tonnes of calcined clay per year. First batches of calcined clay cement with reduced clinker content have already been delivered to customers.

Calcined clay is a particularly well-suited raw material for West African countries without large limestone deposits, enabling them to reduce their dependence on clinker imports. Hakan Gurdal, member of the Managing Board of Heidelberg Materials and responsible for the Group area Africa-Mediterranean-Western Asia: "Our investment and the good collaboration with CBI are paving the way for the transition to lower-emission cement production in this growing West African market. Based on calcined clay technology, we can now extend our offering of innovative, high-quality cement products, while reducing CO_2 emissions and utilising the rich local resources. The project has created over 300 local jobs."

Replacing traditional cement clinker with supplementary cementitious materials (SCM) is a crucial pillar of Heidelberg Materials' decarbonisation strategy. Dr Katharina Beumelburg, Chief Sustainability and New Technologies Officer of Heidelberg Materials: "With calcined clay, we have the potential to reduce the carbon footprint of the finished product by up to 40%. This project not only represents a highly effective, tailored, and scalable sustainable solution for the construction industry in Ghana, but also provides us with valuable learnings that we can apply to future calcined clay projects in other locations around the globe."

To produce calcined clay, raw clay minerals are heated to between 650°C and 950°C. The resulting calcined clay can be used to reduce the proportion of traditional clinker in cement. Since CO_2 emissions from clay calcination are significantly lower than emissions from clinker production,

substituting clinker with calcined clays will significantly reduce the company's CO_2 footprint of cement in Ghana.

As an emerging economy with a fast-growing population, cement consumption in Ghana is expected to double over the next 15 years, offering a large market potential and significant opportunities for a transition to sustainable solutions from local production. Heidelberg Materials has a strong market position in Ghana, with its subsidiary Ghacem being the country's leading cement producer.

About Heidelberg Materials

Heidelberg Materials is one of the world's largest integrated manufacturers of building materials and solutions with leading market positions in cement, aggregates, and ready-mixed concrete. We are represented in around 50 countries with around 51,000 employees at almost 3,000 locations. At the centre of our actions lies the responsibility for the environment. As the front runner on the path to carbon neutrality and circular economy in the building materials industry, we are working on sustainable building materials and solutions for the future. We enable new opportunities for our customers through digitalisation.

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