

A sustainable white cement footprint in Europe

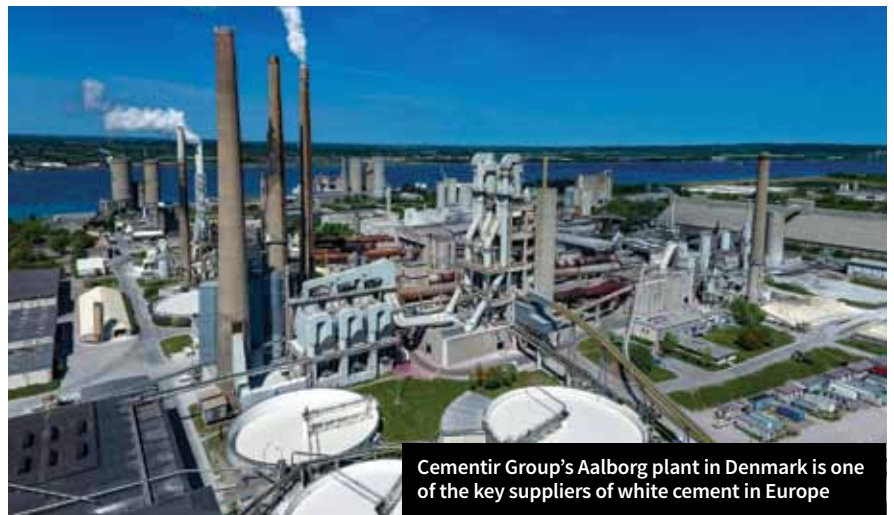
The Cementir Group has been putting sustainability and innovation at the top of its agenda to meet white cement market requirements through daughter company Aalborg Portland. Measures include sustainable practices at the company's key cement facility in Aalborg, Denmark, and the development of innovative products to strengthen its position as the leading white cement brand in Europe.

■ by **M Di Marino and JS Damtoft**, Cementir Group, and **H Hougaard**, Aalborg Portland

Aalborg Portland's white cement plant in Aalborg, Denmark, started production in 1930-31 and has become renowned for its long history and premium-quality products. Today, white cement is parent company Cementir Group's core business and, through Aalborg Portland, it accounts for 15 per cent of total global white cement production capacity.

In the last two years the group has deployed a range of sustainable and customer-oriented initiatives that have enabled the AALBORG WHITE® cement brand to maintain its strong momentum in the global white cement market. Moreover, the AALBORG INWHITE Solution® has become the company's umbrella brand for commercialised high value adding and high-performance products.

"Cementir Group has put innovation and sustainability at the top of its strategic agenda to meet market and customer demand, and to gain a further competitive advantage. The group has been leveraging its expertise and experience over the



Cementir Group's Aalborg plant in Denmark is one of the key suppliers of white cement in Europe

building material's value chain – from production to co-developing new solutions with customers," explains Michele Di Marino, chief sales, marketing and commercial development officer of Cementir Holding.

"Specifically in terms of white cement in Europe, it has exploited its know-how,

local market presence and loyal customer base to continuously develop its AALBORG WHITE product and to create innovative solutions under AALBORG INWHITE. We are challenging ourselves to meet growing demand for sustainable and value adding propositions," he adds.

Serving white cement markets in Europe

When it comes to the innovative application of white cement products, Europe is one of the most dynamic regions in the world. "The European markets for white cement served by the Cementir Group have shown a steady development since the end of the financial crisis – some markets such as Poland have shown a stronger YoY development than others. During the same period European white cement capacity has fallen, attracting new players to some markets," notes Henrik Hougaard, export sales director of Aalborg Portland Denmark.

"The strongest market segments for

Cementir's white cement plants in Denmark and Egypt supply three different types of white cement





White cement experts at Cementir's Research, Quality and Technical Centre

white cement have been within the dry-mix and concrete products, while demand in the precast segment to a great extent is based on projects. Especially within the northern part of Europe, white cement consumption to produce wood-wool cement boards is a growing application.

"AALBORG WHITE CEM I cement servicing the European markets, and produced in Denmark and Egypt, is characterised by high reflection, high strengths and a high degree of quality consistency. As the only white cement in the European market, the AALBORG WHITE cement produced in Denmark is sulphate-resistant SR5 and low alkali," Mr Hougaard adds.

Product diversification and service flexibility

Cementir's white cement plants in Denmark and Egypt produce three different types of white cement for industrial end users in Europe. By combining the various product qualities from both plants, the company can meet customer requirements across a wider range of segments and applications and achieve greater market coverage.

"The footprint of AALBORG WHITE cement in European markets has been steadily growing in recent years, based on local entities with direct supplies to industrial end users. Security as well as flexibility in local deliveries are enabled via strategically-situated sea terminals from where local trucks supply customers with short lead times," says Mr Hougaard.

"For the markets in Benelux and

northern France, Aalborg Portland Belgium markets and distributes a range of white cement products manufactured by Cementir's white cement plants in Denmark and Egypt. Via Rochefort on the west coast of France, Aalborg Portland France distributes AALBORG WHITE cement from Denmark to industrial end users in northern and central France. Distribution to industrial end users in southern France is mainly satisfied by AALBORG WHITE cement produced in Egypt," he adds.

The AALBORG WHITE product range includes:

- CEM I 52.5R-SR5
- CEM I 52.5R
- CEM II-BLL 42.5N.

Cement is delivered in bulk form or in 25kg bags on pallets.

Diversified products and packaging,

as well as customer-oriented services (encompassing logistics, warehouses and technical support), enable AALBORG WHITE cement to be quickly and easily received and used by local customers.

Maintaining a best in class quality product

AALBORG WHITE's reputation for high and consistent cement whiteness and strength is supported by its quality assurance process for different batches of products within each individual plant as well as across all the group's white cement facilities.

Global white cement quality control and management is carried out by the Cementir Group's Research and Quality Centre (RQT) in Aalborg. The RQT centre has established a set of systematic and



White cement arrives at Aalborg's Rochefort terminal in France

advanced product quality management procedures which provide 360° product quality monitoring from raw materials to finished product.

“The Group Research and Quality Centre operates a global quality system to ensure the uniform and consistent quality of our products manufactured at our six white cement plants around the world. The system consists of online quality monitoring, internal benchmarking as well as common procedures and standards.

“We have established a ‘quality scorecard’. It is used by our experts to audit each plant and assess its performance in all aspects related to quality. This ranges from raw material management via quality control systems and plant laboratory performance, to complaints handling and alignment with customer requirements. By taking a holistic approach to quality we maintain AALBORG WHITE cement as a best in class quality product,” states Jesper Sand Damtoft, Cementir’s research and development director.

Mr Sand Damtoft continues: “There are big differences in the expectations of white cement users in terms of quality documentation and consistency between different parts of the world. As a global white cement provider, we offer the same documentation and traceability to our customers, regardless of where the cement is produced.

“As an example, a unified quality concept is employed for all AALBORG WHITE cement produced in Aalborg and exported to customers in Europe. The same concept has now been implemented for AALBORG WHITE cement produced at our plant in Egypt and supplied to Europe. In this way,

the quality consistency is ensured by a best practice quality system.”

Europe as an innovation hub

Europe is one of the most mature markets for white cement applications as well as being the world leader of its innovative use. As Mr Hougaard explains: “Following mega trends in society in favour of modular concepts, the circular economy, high energy efficiency (eg, sun screening and thermal insulation), aesthetic surfaces, low-weight and fast-rising buildings amongst others, innovative customers are developing new applications and, as a result, inject a new-found vitality and dynamic into the European cement market.”

To drive this innovation and initiate new solutions for well-known applications or introduce new applications to the global white cement market, in 2017 the Cementir Group established its global innovation engine for white cement, INWHITE.

“Some of these new applications are based on products developed under the AALBORG INWHITE Solution scheme, such as AALBORG EXTREME® Light 120 and AALBORG EXCEL®, and enjoy strong interest amongst architects, contractors and precasters. The introduction of innovative products also opens the industry’s eyes to improved products and usage, which in return also assists with using correct and better products for the various applications and as such, assists with emissions reduction.

“The first movers under the AALBORG INWHITE Solutions are mainly seen in northwest continental Europe. Up to now, we have received very positive feedback

from our customers on our new UHPC [Ultra High Performance Concrete] premix products AALBORG EXTREME in Benelux and France,” adds Mr Hougaard.

The AALBORG INWHITE solution helps bring added value to customers, broadens the company’s product portfolio and strengthens customer relations while consolidating its position as the leading white cement brand in Europe.

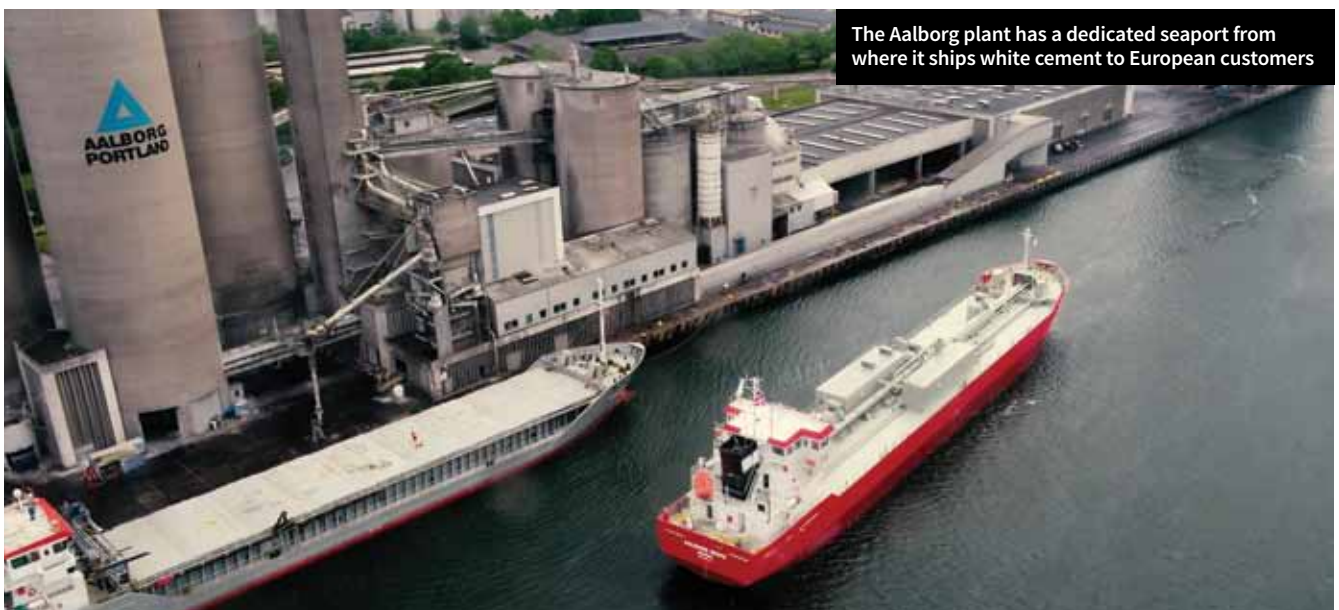
Sustainable production at Aalborg, Denmark

In the production of white cement clinker, the Aalborg plant actively contributes to the circular economy by reusing waste heat for the benefit of the entire city and region.

“The Aalborg plant recovers surplus heat from the white cement production process through a heat recovery system and, via Aalborg’s district heating system, heats some 36,000 households in the vicinity of the town. In 3-4 years we expect to double the supply of this waste heat and contribute to a further reduction of CO₂ emissions in society, Mr Hougaard highlights.

“We are investing heavily YoY in new solutions aiming to improve our environmental footprint. Overall Aalborg Portland has reduced its CO₂ emissions by 18 per cent since 2000,” he continues.

The overall target for Cementir’s Aalborg plant is to reduce its CO₂ emissions by 30 per cent by 2030. Measures such as the use of alternative raw materials and fuels (where feasible), as well as new technologies have already been implemented and will be further developed to meet the ambitious target. ■



The Aalborg plant has a dedicated seaport from where it ships white cement to European customers

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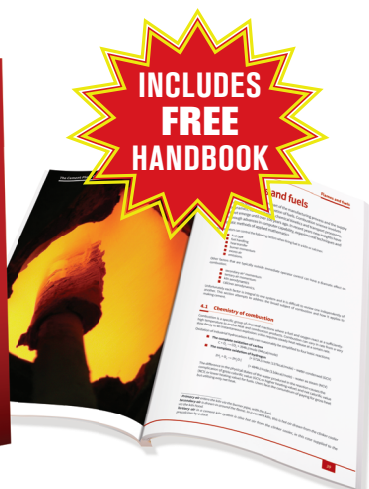
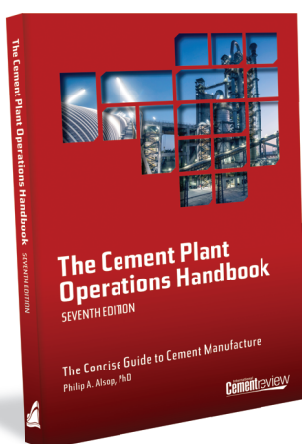
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