



T H E WHITE SITE

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AALBORG WHITE® is white cement – a product of nature's own raw materials, refined with unparalleled technology, for use in the creation of beauty and functionalism.

NEWSLETTER FROM AALBORG WHITE®

City of La Plata Stadium, Province of Buenos Aires, Argentina

By Eloy Migoya, Product Manager, Iggam S.A.I., Argentina
Photos by the Studio of Architecture, Roberto Ferreira & Associates



Model of the City of La Plata Stadium

The La Plata Stadium Foundation was created in 1992 and initiated a preliminary project contest. The result was that The Studio of Architecture, Roberto Ferreira & Associates, was selected both as the project architect and as the company responsible for the technical management of the construction work.

In 1995, the provincial authorities proposed the enlargement of the stadium capacity and the incorporation of a roof. Consequently, in 1997, the body in charge of the financing, administration and execution of the construction (The Provincial Executive) invited tenders from contractors and in February 1998 a start was made on the new construction.

The stadium comprises an area of 12,000 m² with tiers that seat about 40,000 spectators, in conformance with the regulations of the FIFA (the international football association). It will be completely covered by a roof consisting of a peripheral steel-trussed compression ring that bears the load imposed by the roof and from which boxes for special spectators are suspended. A triangular network of steel cables covered by a translucent fibre glass Teflon membrane gives shape to the roof.

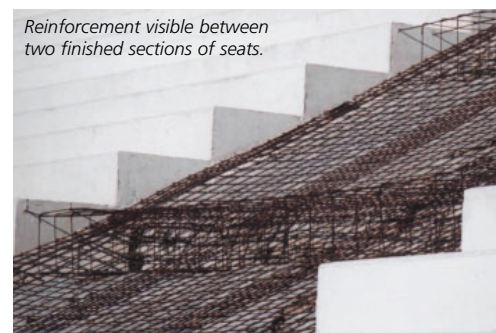
As the stadium is completely covered and the purposes for which it is used go beyond those of a normal sports arena, the finish demanded for the tiers of seats had to be far superior to that found in other stadiums. It was for this reason that AALBORG WHITE® cement was chosen for the concrete work.

Portland White Cement Concrete structures are not traditional in Argentina, but in this application they offered extremely attractive properties:

- Mechanical, chemical and durability characteristics similar to those of normal grey cement concrete.
- Excellent surface finish.
- Superior light-reflectivity which enhances illumination.
- Standard preparation, transport and casting techniques.



Section of finished seats.



Reinforcement visible between two finished sections of seats.

City of La Plata Stadium:

Construction started February 1998
Expected completion: June 2002
Budget: \$100,000,000
40,000 Spectator seats – 12,000 m² area

6,000 m³ white concrete, with the following constituents:

- 330 kg AALBORG WHITE® cement
- 860 kg fine aggregate
- 1,020 kg coarse aggregate
- 1.15 kg additives
- 175 kg water
- 50 kg reinforcement per m³

White concrete characteristics:

- Compressive strength (design) 21 Mpa
- Compressive strength (reached) 40 Mpa
- Water/cement ratio 0.53
- Average slump: 10.5 cm
- Bulk density 2,386 kg/m³

The conclusion was that the behaviour of concrete made with AALBORG WHITE® cement as regards consistency, workability and uniformity – and as regards the mechanical strength, texture and colour uniformity in the hardened condition – met all project demands.

Manufactured of Lightweight Stone from AALBORG WHITE®

By Yeap Chin Seong, Aalborg RCI White Cement Sdn. Bhd., Malaysia

Natural stone alone cannot provide a surface of the consistent colour and texture demanded by most architects. This is impossible with natural stone – but can be done with the help of AALBORG WHITE® cement!

Eldorado Stone Malaysia is made from AALBORG WHITE® cement, mineral oxide colours, and lightweight aggregates (all of which are the basic components of natural stone). Eldorado Stone is in essence natural stone reconstituted. Its low weight permits easy installation on almost any existing or new surface. The colour is permanent and weathering actually enhances the stone appearance. In addition, the need for maintenance work is virtually eliminated.

A wide variety of stone types is also possible and among the most popular are Cobblestone, Mountain Stone, Driftstone, Quartz, Limestone, Sandstone, White Monarch, Ocala, and Moss Rock.

Finally, using manufactured lightweight stone lessens the burden on the environment and makes a substantial contribution in ensuring the sustainability of the construction industry.



Stacked Stone



Stacked Stone with Jumpers



English Castle Stone



Northwest River Rock



Mountain Stone Monarch



Berkshire Castle Stone

It is now possible to produce any type of stone finish, for any structure, internal or external, using AALBORG WHITE® cement. What is more, with AALBORG WHITE® cement there is no limitation on colour.

The Eldorado Stone Corporation of America has granted a license to a Malaysian Company, Premier Building Material Sdn. Bhd, to produce Eldorado Stone.

Originally, Premier Building Material received instruction from America in the use of ordinary Portland Cement (grey cement) for the production of Eldorado Stone, but after subsequent research and initiatives, Premier Building Material found that AALBORG WHITE® cement gave much more scope in providing consistent texture, durability, and colour varieties where cast natural stone was concerned.



ARTicles of AALBORG WHITE®



Grupo Carmelo receive AALBORG WHITE® cement through the local distributor, Mendez & Co.

Sculptures in Puerto Rico

In Puerto Rico the company Grupo Carmelo manufactures paving products in many shades using AALBORG WHITE® cement. The company has an outdoor gallery where their various products are on display. Since Miss Melba Figueroa, the President & CEO of Grupo Carmelo, has a keen interest in art, the gallery has been extended to include sculptures in white and coloured concrete. At the beginning of August Melba Figueroa arranged an art workshop at the factory in cooperation with the Plastic Art School in Puerto Rico. The director and professor in charge was the Mexican sculptor Antonio Nava Tirado. Distinguished Puerto Rican sculptors were invited to attend the workshop where each participant had the opportunity of sculpting in concrete. Some of the results are shown in the illustrations.



AALBORG WHITE®

From grey cement to expert solutions in white concrete

Written by Svend Bamholdt, AALBORG WHITE® Technical Team

Wood fibre concrete slabs

When visitors arrive at Aalborg Airport by plane they enter the new, recently completed airport building. With its large glass facade facing the arrival area, the building makes an immediate impression on visitors, especially later in the day when the light enhances the structure even more. The building is primarily constructed of wood and glass. However, a little white cement has crept in with the wood - the elegant ceiling cladding is made of wood fibre concrete slabs based on **AALBORG WHITE®** cement.

Wood fibre concrete slabs are popular in certain geographical areas, primarily for sound insulation purposes and precisely because they effectively absorb sound. Therefore, in sports halls and other large enclosed areas such as Aalborg Airport the slabs are the obvious choice in ensuring a comfortable acoustic climate. Previously, wood fibre concrete slabs were made mainly with grey cement as the base material that was then often painted. Today, and to an increasing extent, they are based on white cement and the slabs thus assume a lovely light wood colour.



*Texture and colour of wood fibre concrete produced with **AALBORG WHITE®**.*



Aalborg Airport is designed by the firm of architects Schmidt, Hammer & Lassen K/S. The building was constructed in 1999-2001.

Picture to the left: A view of the ceiling sheets before entering into the arrival lounge.



The new light open glass front towards the airside welcomes the arriving passengers to Aalborg Airport.

The foundations of existing high-rise buildings can be strengthened using **AALBORG WHITE®** cement

- a method to reduce the destructive effect of earthquakes on buildings

Written by Jørgen Norup, Executive Vice President, Sales and Marketing, Aalborg Portland A/S

Earthquakes are a common phenomenon in many parts of the world. Especially in larger cities, people have become more conscious of the fact that buildings are at great risk during earthquakes.

Action is therefore increasingly being taken to strengthen the foundations of buildings in case earthquakes occur. Here, **AALBORG WHITE®** cement can be used with advantage as one of the components and a company in Korea that specialises in foundation strengthening of buildings uses **AALBORG WHITE®** for just this purpose.

AALBORG WHITE® cement is a component of the company's end product, which is injected, via a special patented process, into the existing steel and concrete foundations of high buildings. If necessary, buildings can be additionally safeguarded by surrounding existing foundations with a new layer of concrete. In this case,

however, it is important not to prevent the building from "swaying" during an earthquake.

The product and injection method can, of course, also be used on other constructions such as bridges, tunnels, chimneys, etc.





AALBORG WHITE®

Welcome to a new distributor in Switzerland

Aalborg Portland has entered into an agreement with Jura-Cement-Fabriken in Wildegg, Switzerland, on the sale and distribution of AALBORG WHITE® in Switzerland. From 1 January 2002, Jura-Cement-Fabriken will be the sole agent in Switzerland for AALBORG WHITE®.

First shipment to Bangladesh

The first shipment from Aalborg to Bangladesh will be on its way in December. It is on this background we look forward to being able to help our friends in Malaysia, who will be responsible for the export of AALBORG WHITE® cement to Bangladesh during the second half of 2002.

Revised AALBORG WHITE® data sheet

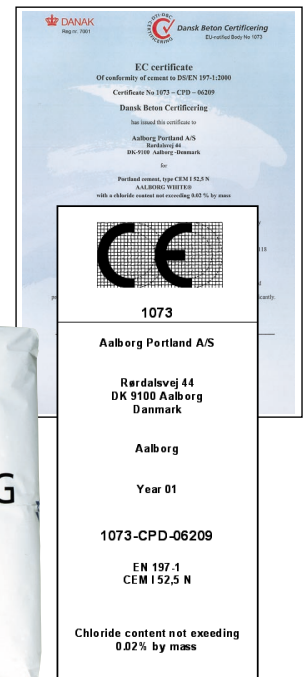
The product data sheet for AALBORG WHITE® cement produced in Denmark has just been revised and reprinted. It can be downloaded or ordered from our homepage: www.aalborg-portland.com



AALBORG WHITE® is the first Danish construction material to carry the CE mark

By Christian F. Justesen, Technical Advisory Services, Aalborg Portland A/S

In the middle of August 2001, Aalborg Portland received its first EC certificate of conformity with the new European cement standard DS/EN 197-1. The certificate is numbered 1073-CPD-06209, where CPD stands for Construction Product Directive. The certification gives us the right to use CE marking on AALBORG WHITE® cement, which thus becomes the first Danish CE-marked construction material. The illustration shows a photograph of the certificate as well as the mark that in future will be printed on sacks and delivery notes.



New appointment - Sales Coordinator, White Cement



Ms Ann Marie Søborg Karkov, Sales Coordinator, White Cement, Aalborg Portland A/S, Denmark

On 1 October 2001, Ms Ann Marie Søborg Karkov (31) took up a position as Sales Coordinator, White Cement. Based in Aalborg, Denmark, Ann Marie is responsible for many administrative tasks including internal coordination and service concerning the sales and distribution of white cement throughout the world. Ann Marie will also be glad to talk to you when your normal day-to-day contact person is not available. We wish Ann Marie welcome aboard.

You are the catalyser

The purpose of The White Site is to give our readers knowledge about and inspiration for the use of AALBORG WHITE® cement. Therefore the editors are always glad to receive material for publication. Give us a tip or contribute a story or a photo.

Contact Gurli Brogaard by e-mail: gb@aalborg-portland.dk if you know about a project that would be of interest to readers of The White Site.

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Circulation: 1500

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