



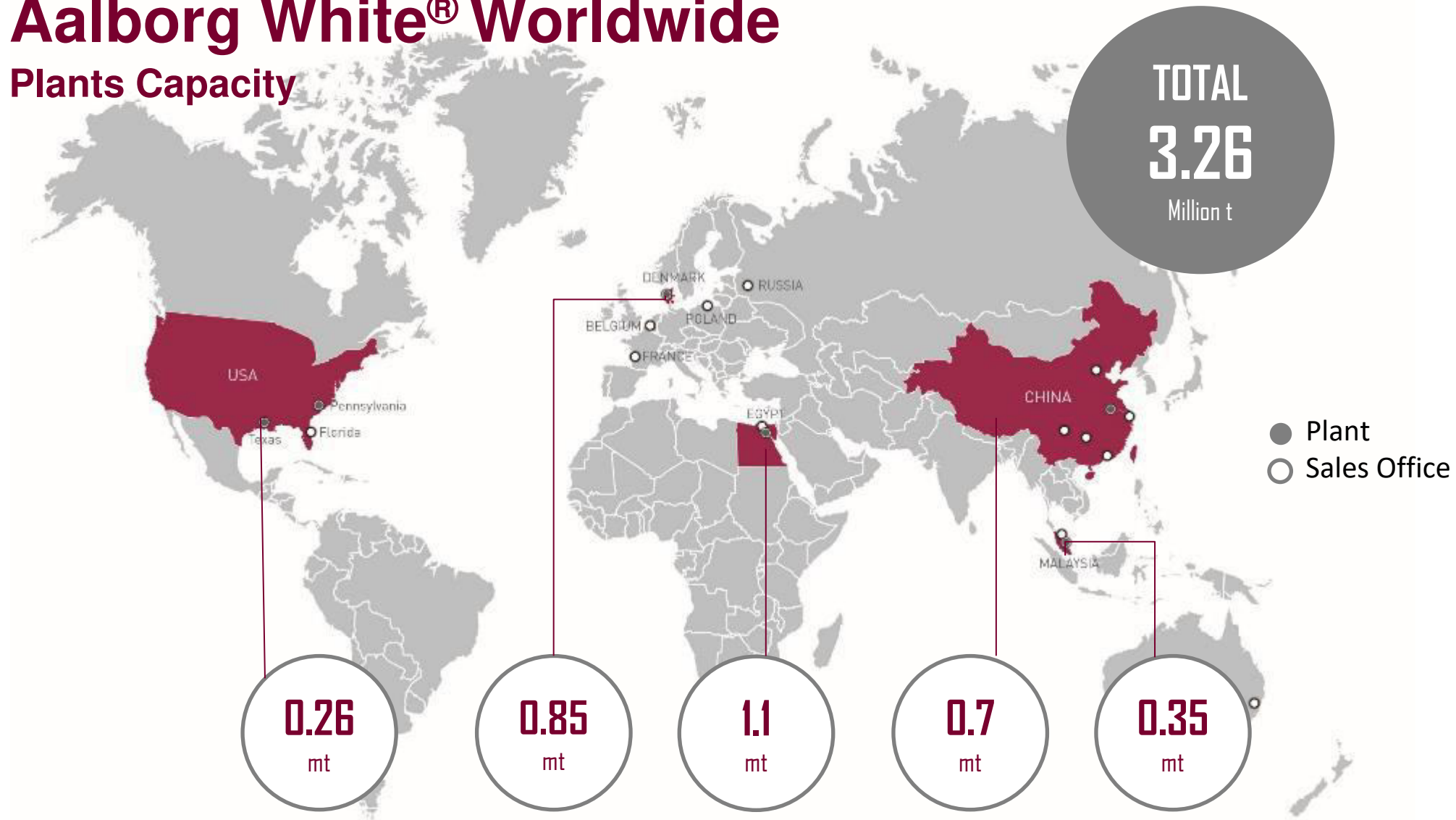
Aalborg White: Looking forward to a more sustainable FUTURE

BIBM Congress Amsterdam

Amsterdam, 27-29 September 2023

Aalborg White® Worldwide

Plants Capacity



Aalborg Portland In White Cement

80+

year's history as a global leading player in White Cement.

70+

countries worldwide are served under the global AALBORG WHITE® brand from production plants in Denmark, Egypt, Malaysia, China as well as US

3.26 mt

capacity and production facilities strategically located in four continents.

We provide:

- A reliable white cement supply of consistent quality for all cement features
- Value-adding services into the customers' supply chain
- Extensive technical and customer support
- Potential cooperation in (co)developing new applications using white cement

Cementir Holding:

is the mother company of Aalborg Portland, an international Group with operations in **17 countries**, with over **3,000 employees**, active in white and grey cement, ready mix concrete, aggregates, concrete products, waste management.

The Aalborg White product family in Europe

Portland cement
CEM I 52,5R
Made in Egypt



Sulphate resisting
Portland cement
CEM I 52,5R – SR5
Made in Denmark



Portland limestone
cement
CEM II/B-LL 42,5N
Made in Egypt



NEW
from 2024

Portland
limestone cement
CEM II/A-LL 52,5R
Made in Denmark

| New Portland limestone cement – CEM II/A-LL 52,5R

From 2024 a new white cement based on the unique clinker from Aalborg will be launched on the European market

Aalborg White limestone cement, CEM II/A-LL 52,5R

The aim of this cement is:

- Significant reduction in CO₂ footprint
- An excellent general-purpose cement

More than 10% less
CO₂ compared to
CEM I

| Cement applications that will benefit from the new limestone cement



Semi-dry cast concrete products

- Improved finishes and surfaces
- Improved pre-stability and edge solidity
- Improved concrete density and strength



Tile adhesive

- Improved consistency/workability

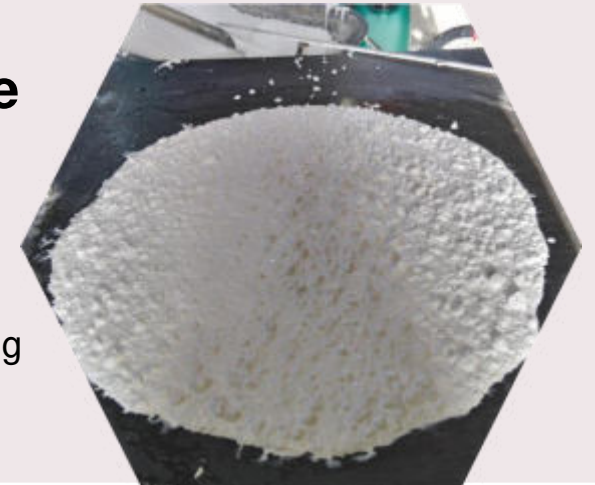
Brick laying mortar

- Improved consistency/workability
- High early strength without too high late strength



Wet-cast concrete

- Less water bleeding
- More robust SCC – less segregation
- Less need for plasticising admixture

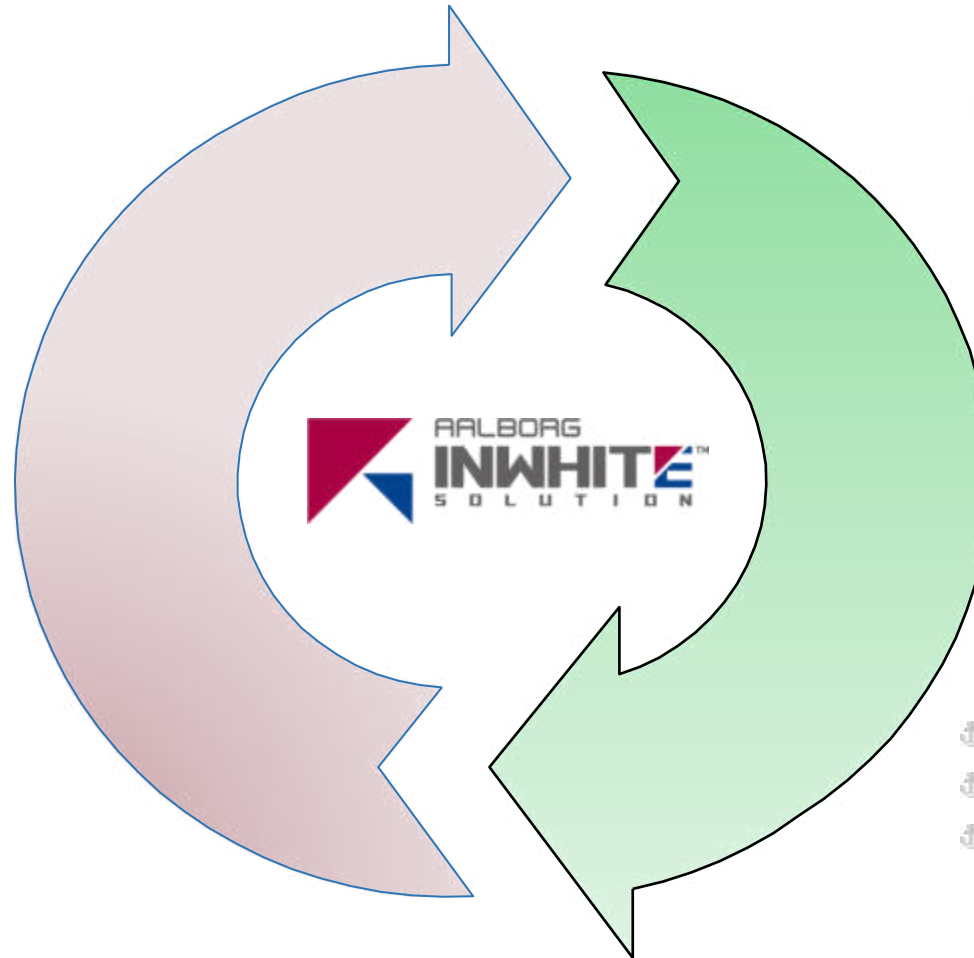


INWHITE SOLUTIONS®

Thanks to Performances...



- ⚓ Thinner elements with material saving
- ⚓ Easy to cast (self-levelling)
- ⚓ Fast building with lower logistic costs
- ⚓ Reducing maintenance costs



Thanks to **FUTURECEM®**



- ⚓ Leveraging on more sustainable material
- ⚓ Less CO2 emissions
- ⚓ Enhanced durability

FUTURE CEM

Sustainable solution for cement, RMC and innovative products. It enables concrete with reduced clinker content (greener) and by exploiting two largely available materials on earth (sustainable).



Launched in Denmark in January 2021 and in February 2022 in France and Benelux



White cementitious binder to be used in mortar and concrete recipes for high performance and highly aesthetical applications.



Ready-to-use, self-compacting RMC products for very high aesthetical, mechanical and durability performance – wet-cast casting method – semi-structural or structural



Ready-to-use, high performance mortar products for very high aesthetical – primary focus is surface detail and finishing – wet-cast casting or sprayed method – semi-structural



<https://www.aalborgwhite.com/aalborg-white-world/innovation>

InWhite UHPC: Aalborg Excel / Aalborg Extreme

AALBORG
EXTREME

Structural and Semi-Structural

- Highly suited for metallic fibers
- Water Dosage 7,8%-8,2%
- Mixing Time (min.) : 10
- Shrinkage reduced
- Maximum particle size – 3 mm
- Self-compacting, highly flowable

Main applications:

- Bridges
- Balconies
- Stairs



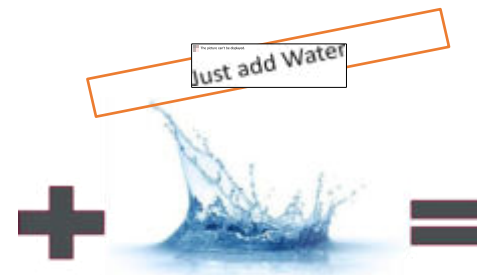
AALBORG
EXCEL

Architectural Application

- Highly suited for glass-, PVA fibers
- Water Dosage 9,6%-10,4%
- Mixing Time (min.) : 8
- Shrinkage reduced
- Maximum particle size – 1 mm
- Self-compacting, highly flowable

Main applications:

- Light weight cladding panels
- Sun-screens
- Ornamental elements
- Urban furniture



<https://www.white-hub.com>

| INBIND® - Futurecem Technology



INBIND® is the **binder** used in all InWhite products

It's based on **FUTURECEM®** patented limestone calcined clay technology

Outstanding fresh and mechanical properties

Flexible solution, allows customization with local material



- Easy to formulate
- Empowers UHPC product with high durability
- Outstanding color performance
- Reduces total costs on UHPC



Unlimited Possibilities

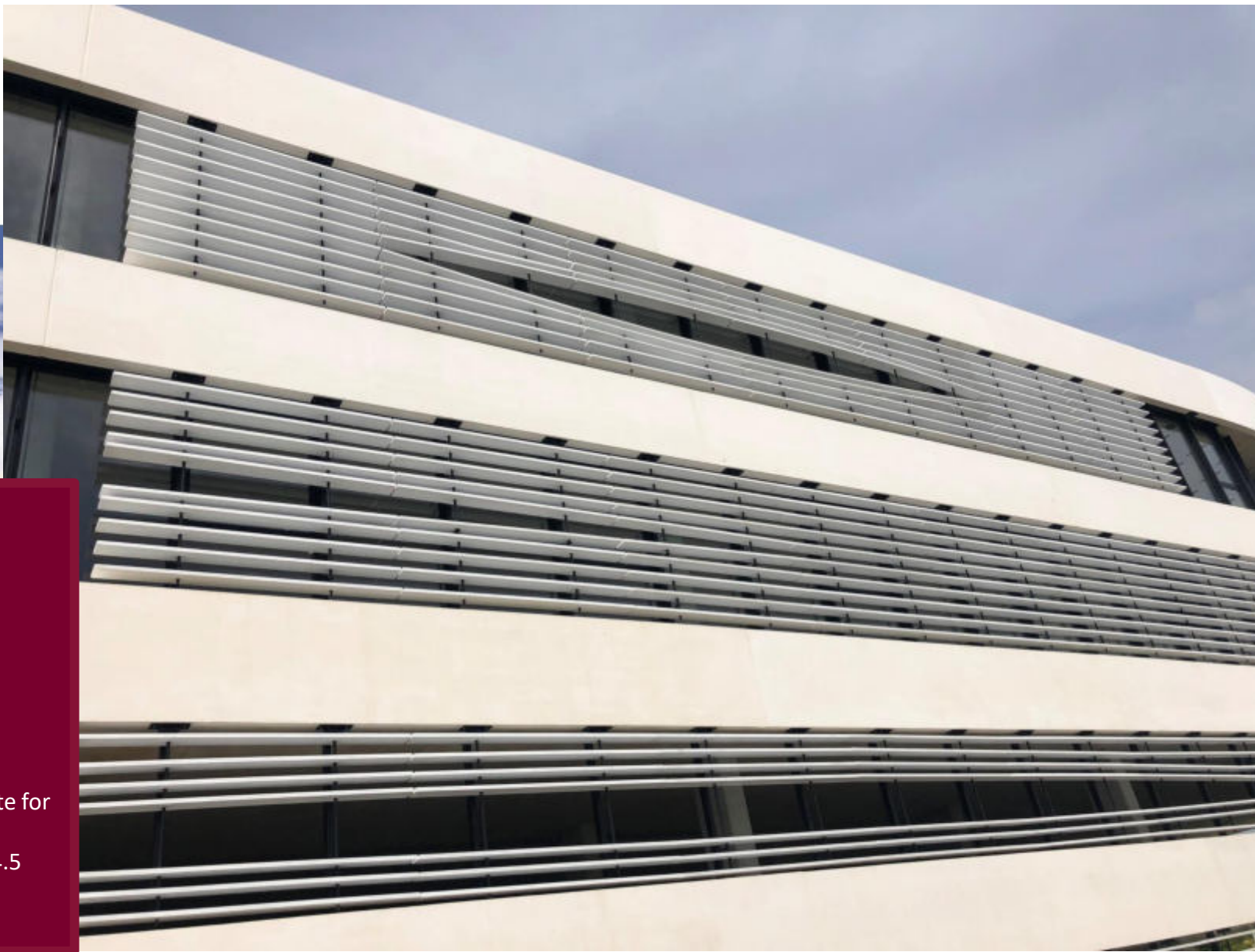
Confidential



Application:

- Cladding elements
- 120 Mpa, glass fibre reinforced and addition of black aggregate for blast surface appearance
- Dimensions: up to 3.0 m x 1.4 m. 19 mm thick





France
ZASH Bézannes (Reims)

Architect Rudy Ricciotti

Precaster: Betsinor

Application:

- Cladding elements
- 120 Mpa, glass fibre reinforced and addition of black aggregate for blast surface appearance
- Flexural strength performance, $f_{ctk,el} = 12.5 \text{ Mpa}$ // $f_{ctfk} = 14.5 \text{ Mpa}$
- Dimensions: up to 3.0 m x 0.25 m. 35 mm thick



UHPC
Mesh
panels

France
2021
Road Operations Centre in Antibes

Architect: Architect Heams & Michel
Precaster: Betsinor

Image @Aldo Amoretti
Source: bybeton.fr





AALBORG
EXTREME



Netherlands
2021
Pedestrian UHPC Bridge
Engineering: FDN Group
Precaster: Waco

UHPC
Bridges
deck



Application:

- 3 UHPC pedestrian bridges
- Concrete strength 130 MPa
- Synthetic fibre and steel reinforcement
- Dimensions: 3.0 m x 9.3 m.
- Deck thickness 85 mm

Qatar
2022
Qatari miniature buildings
in the Doha Modern
Playground

Designer: Shezad Dawood

Architect: Delvendahl
Martin Architects

Precaster: MDM Props.

UHPC
elements

Projects Urbastyle

Belgium Sint Joost ten Node
Sint Lazarus Square
2021

Product: Salta Bench (22pc)

Architect: B a s S m e t s

Precaster: Urbastyle

Dimensions: 200x50x45cm 295kg



Projects Urbastyle



Projects Urbastyle

Belgium Harelbeke

Sluice gate

2018

Product: Salta Bench

Architect: Bas Smets

Precaster: Urbastyle

Dimensions: 200x50x45cm 295kg



Projects Urbastyle

UAE Dubai

Head office Porsche

2021

Product: Line&Line Benches, seats,
tables, planters

Architect/Designer: Manon de Smet

Precaster: Urbastyle

Dimensions: maximum 200x90x75cm 280kg



Projects Urbastyle

Denmark

Munkebjerg Business Park Ödense
2021

Product: Line&Line Benches, tables, planters

Architect/Designer: Manon de Smet

Precaster: Urbastyle

Dimensions: maximum 200x90x75cm 280kg



Projects Urbastyle

Belgium
Kortrijk EXPO
2018

Product: Skate seat
Architect/Designer: Roel Vandebeek
Precaster: Urbastyle
Dimensions: 40x40x46cm 25kg



Thank You

For further details:

<https://www.white-hub.com>

<https://www.aalborgwhite.com/aalborg-white-world/innovation>

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