



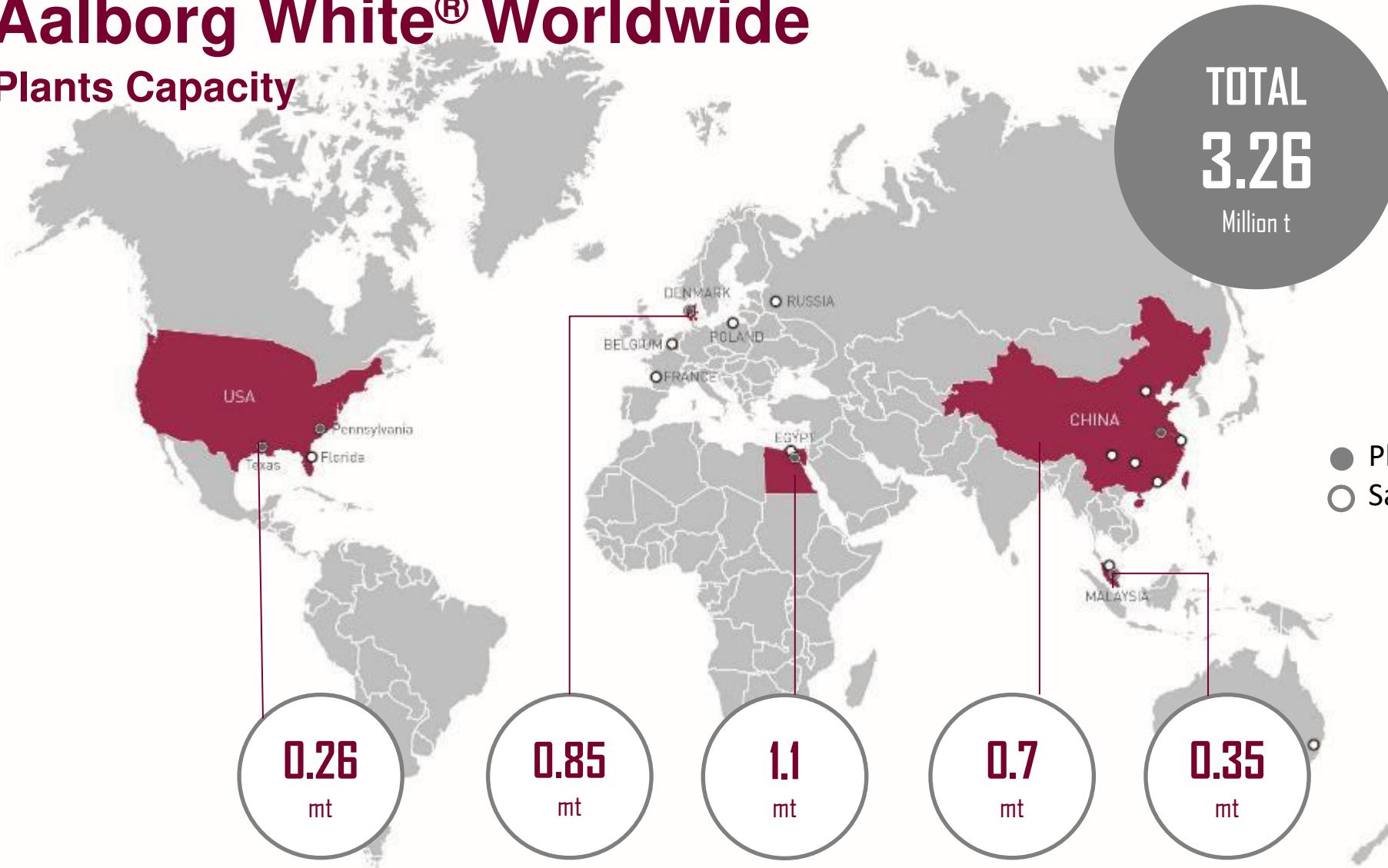
# Aalborg White: Looking forward to a more sustainable FUTURE

*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  
CO<sub>2</sub> 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

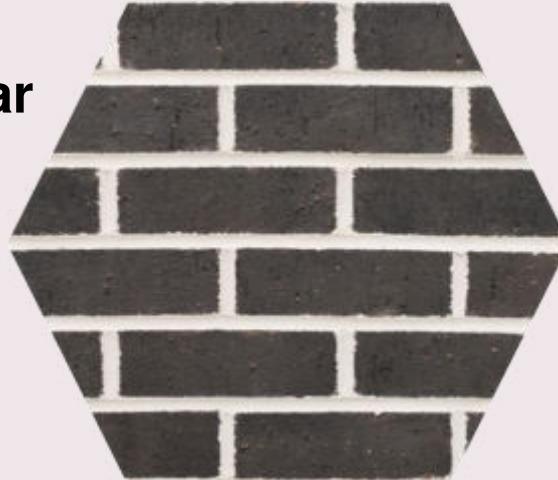


## Tile adhesive

- Improved consistency/ workability

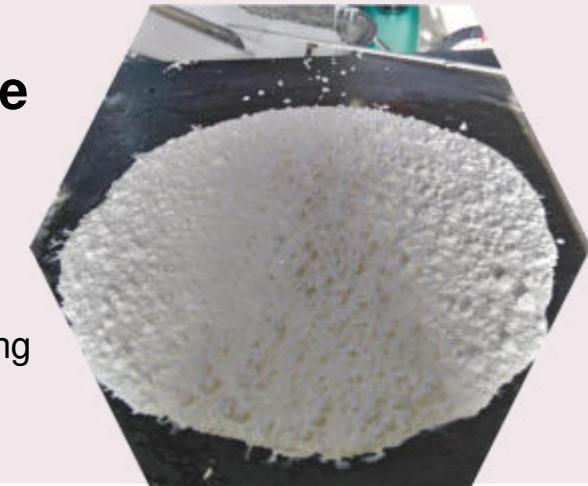
## Brick laying mortar

- 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

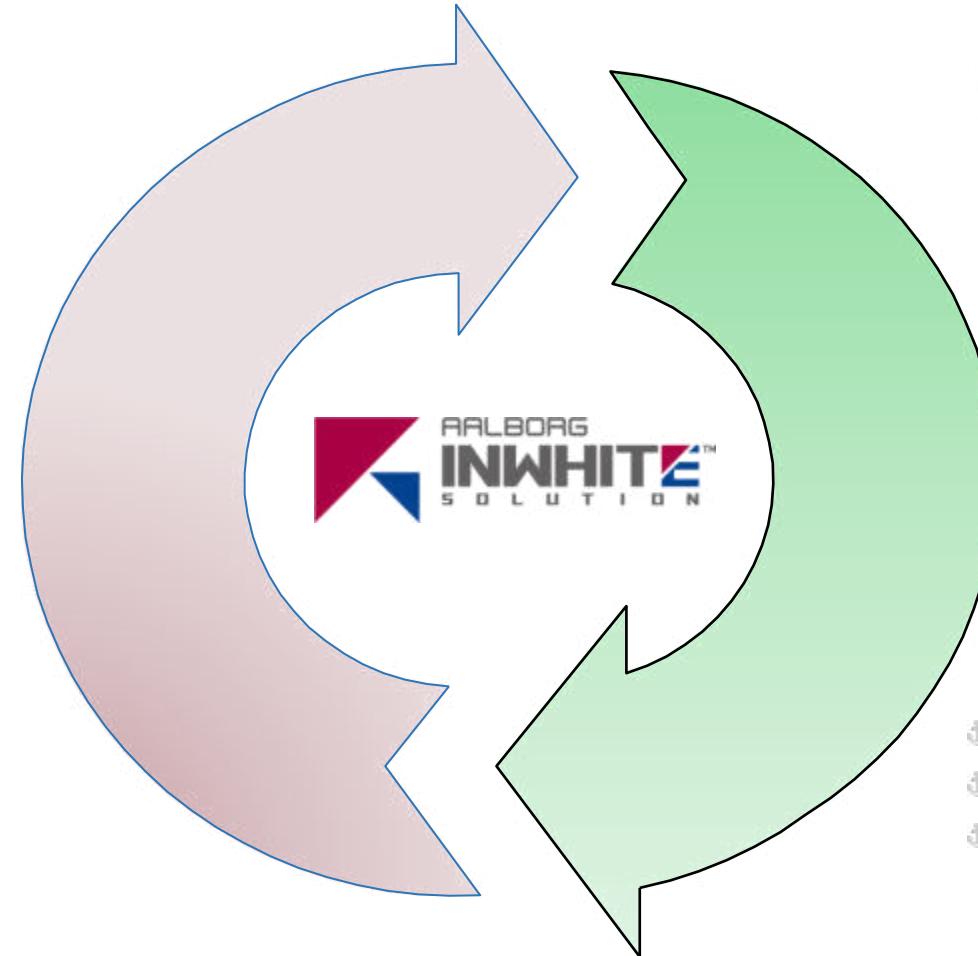


# INWHITE SOLUTIONS®

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

## FUTURECEM

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

## AALBORG **INBIND**<sup>TM</sup>

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



## AALBORG **EXTREME**<sup>®</sup>

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



## AALBORG **EXCEL**<sup>®</sup>

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



## 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
- Balconnies
- Stairs

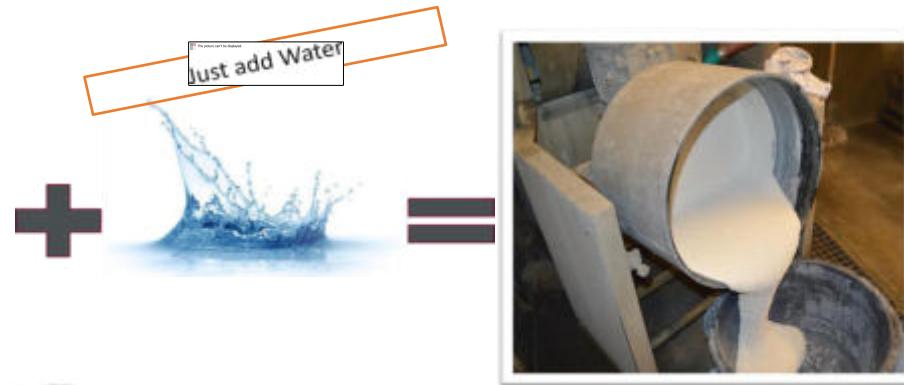


## Architectural Application

- 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

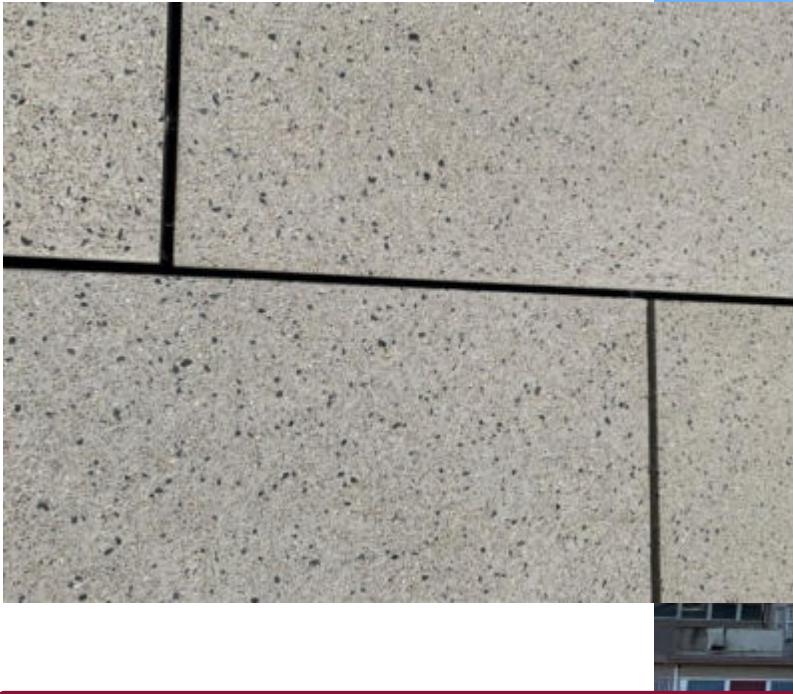
**Flexible** solution, allows customization with local material



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



Unlimited Possibilities



#### 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







Netherlands  
2021  
Pedestrian UHPC Bridge

Engineering: FDN Group  
Precaster: Waco



#### 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.

# Projects Urbastyle

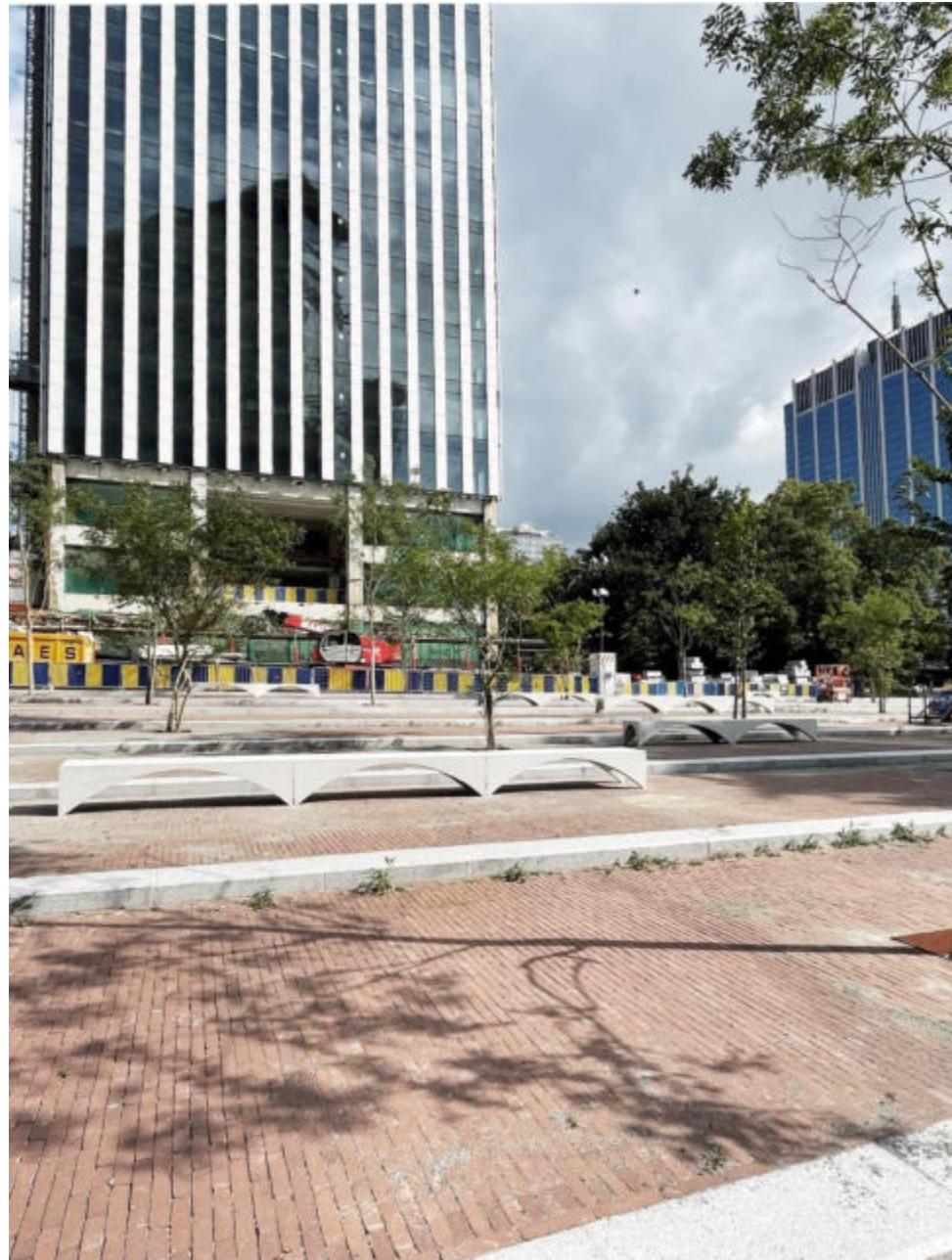
Belgium Sint Joost ten Node  
Sint Lazarus Square  
2021

Product: Salta Bench (22pc)

Architect: Bas Smets

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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