



FUTURE CEM[®]

Low Carbon Cement



What is FUTURECEM®?

FUTURECEM®

- is the result of an innovative limestone and calcined clay technology which allows high clinker replacement in cement.
- is based on extensive applied research, which has been developed in recent years at the Cementir Group Research and Quality Centre located in Aalborg, Denmark, covering the entire value chain: from raw material assessment, manufacturing technology, up to concrete technology.
- The low carbon benefits of FUTURECEM® are achieved preserving strength and quality and leveraging on the unique synergies of the material combination.
- is a proven innovation: successfully used in concrete applications for building two bridges in Denmark (project “green concrete II”)

Why is FUTURECEM® more sustainable than ordinary cement?

FUTURECEM® is more sustainable because it :



Determines approx. 30% CO2 emission reduction in the manufacturing phase;



Enables production of durable concrete with reduced clinker content by exploiting synergies of two largely available materials;



Is fully acknowledged as a solution for clinker ratio reduction in the roadmap for “Low Carbon transition in the cement industry” by the International Energy Agency – 2018 and as “low clinker cements” in the “Cementing the European Green Deal”-2020, making Cementir Group the frontrunner;

Is also recognized into EN 197-5 European standard for II/C-M cements (Click to see page n°4 of the attached document)

Supporting Construction Industry Decarbonization

FUTURECEM® plays a crucial role in the sustainable transformation of concrete, construction, and cement industries.

Cementir Group promotes low carbon RMC by incorporating circularity (use of recycled aggregates) and cements with reduced CO2 emission footprint (FUTURECEM® technology and other blended cements).

Unicon, the Cementir Group RMC company in Denmark, achieved significant CO2 reductions in 2022 by using supplementary materials and UNI-Green concrete based on FUTURECEM® technology. CCB Beton, the Cementir Group's RMC business in Belgium and France, expanded its product portfolio with the C-Green based on FUTURECEM® and offers to the French market and Belgium. It delivers a 30% CO2 reduction while remaining the same performance required as CEM I.

Availability and Packaging

FUTURECEM® CEMENT is currently available in Scandinavian region through Aalborg Portland AS and in Benelux and North of France region through CCB SA.

It can be delivered in bulk, 25 kg bags as well as big bags – according to plants production.



Applications

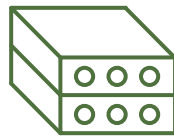
In collaboration with customers, FUTURECEM[®] has been tested and used in wide range of applications from ready mix concrete (RMC) to precast elements.



Ready Mixed Concrete

FUTURECEM[®] cement is suitable for concrete industry, while maintaining conventional production and execution technologies. Thanks to its composition, FUTURECEM[®] can enhance concrete consistency and pumpability.

All the main concrete classes are achievable, with minor finetuning in the recipes.



Concrete Products

FUTURECEM[®] fully meets requirements for particular concrete products, thanks to its early ages performances as well as its inner durability. Extensive testing program with selected customers has resulted into customers' acceptance in their process. Leading producers in Belgium for hollow blocks and others have decided to use FUTURECEM[®] as main cement for their production.

FUTURECEM[®] has been tested proficiently in the research project of Blocs B40 low carbon concrete led by CERIB, where the objective is to approve the low carbon for precast industry.



Dry Mix Mortar

FUTURECEM[®] has been incorporated some commercial products to achieve reduced CO2 emissions while preserving performances.

Projects

FUTURECEM® has been used in RMC and concrete elements for the ambitious sustainable building UN17 Village in Ørestad, Copenhagen with more than 500 apartments. When completed in 2024, it will be known as **the world's first housing project integrating all 17 UN Global Goals in the same building.**

[Click to learn more about the project.](#)

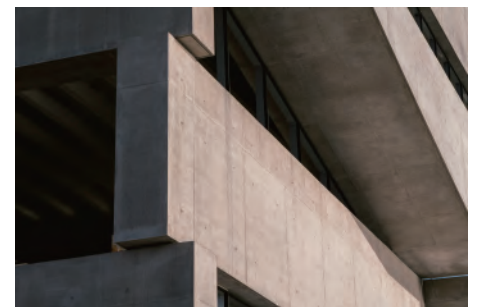


UN17 Village in Denmark

Ready Mix Concrete & Concrete Element Application

BIG Headquarter in Denmark

Ready Mix Concrete Application



FUTURECEM® has been used in RMC for total 4,880 m² Bjarke Ingels Group HQ office which is set to achieve DGNB Gold. Through use of Uni-Green – a new type of concrete by Unicon based on FUTURECEM® technology that has a **C02 reduction of approx. 25%, resulting in a C02 footprint of 11.3kg C02 eq/m²/year.**



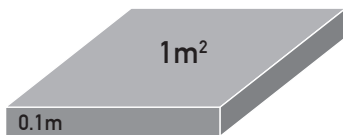
LOGER HABITAT in France Ready Mix Concrete Application

FUTURECEM® has been used in RMC for the individual housing project LOGER HABITAT in the city of Croix. **Total 400m³ C-GREEN Neutral based on FUTURECEM®** was used for concrete slab in the winter period.

LOGISTERA platform in France Ready Mix Concrete Application

FUTURECEM® has been used in RMC for the construction of a Logistic platform of LOGISTERA company in the City of Noeux les Mines, in collaboration with Bouygues. The project covers an extensive area of 100km². A total of 6km³ concrete was supplied for this platform project, out of which **1km³ was C-GREEN Neutral concrete based on FUTURECEM®**.


Decarbonization in Practice



CO₂-footprint/1 m² concrete floor (H: 0,1 m)

With Ordinary Portland Cement	25,8 kg CO ₂
With FUTURECEM®	18,0 kg CO ₂
SAVINGS per m²	7,8 kg CO₂



905 kg SAVED CO₂ = 8,100 km driving in an ELECTRIC CAR instead of PETROL CAR 

CO₂-footprint concrete flooring one-family house (H: 01 m)

With Ordinary Portland Cement	2.993 kg CO ₂
With FUTURECEM®	2.088 kg CO ₂
OVERALL SAVINGS	905 kg CO₂

**Calculation of the CO₂ savings based on Danish experience.*

InWhite Portfolio Based on FUTURECEM®

Being a global market leader in white cement, Cementir Group has invested in further developments and commercialisation applying FUTURECEM® limestone-calcined clay concept into new products and solutions within InWhite® UHPC solution: Aalborg Extreme®, Aalborg Excel®, and Aalborg InBind®.



[Click to learn more about InWhite® Solution](#)

● Premixed Ultra High Performance Concrete

AALBORG
EXTREME®

● AALBORG
EXCEL®

● Binder for Ultra High-Performance
Concrete & Mortar

AALBORG
INBIND®



For technical and commercial inquiries, please click link below to locate the nearest sales office of **FUTURECEM®** in your region:

Scandinavian:

FUTURECEM CEMENT - Aalborg Portland

Benelux and North of France:

FUTURECEM CEMENT – CCB GROUP

Explore more at:

www.cementirholding.com/FUTURECEM®

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