

# Geoprime<sup>®</sup> Hollow-core slab

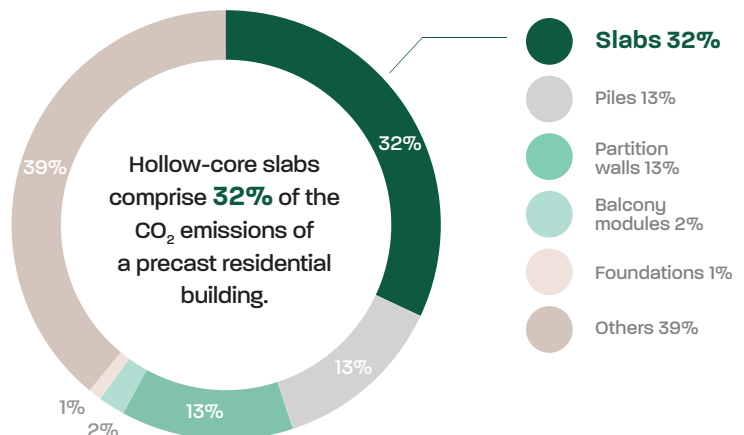
## Revolutionizing Construction Industry – Sustainable hollow-core slab technology for truly greener buildings

Betolar launches Geoprime<sup>®</sup> solution for hollow-core slab manufacturers, which offers up to 80% reduction of CO<sub>2</sub> emissions to the construction industry and property developers. Licensed to precast manufacturers, the technology helps to achieve sustainability targets without additional equipment investments or compromises in the technical performance of the product quality.

Prestressed Geoprime hollow-core slab can be applied in various construction cases such as floors for commercial, residential, and industrial buildings. These slabs are made efficiently using circular materials, which is better for the environment.

Geoprime hollow-core slab is a versatile and cost-effective component in construction, enabling design flexibility. Slabs can be customized to meet the specific design requirements of a building, such as thinner slabs in bathrooms or HVAC ducting. Voids provide strength and rigidity to the slab, enabling more efficient structures and larger spans and increasing the usable flooring area. In addition, fire resistance, thermal and acoustic characteristics make the Geoprime hollow-core slab a good choice for safer and quieter indoor environments.

Hollow-core slabs contribute significantly to a building project's CO<sub>2</sub> emissions



Geoprime hollow-core slab saves up to 266 000 kg of CO<sub>2</sub> emissions in a typical 7-storey high precast element apartment building.

### About Betolar

Betolar is a pioneering materials technology company focusing on turning industrial sidestreams into a sustainable business and circular economy. Betolar offers a continuous competitive edge to the construction, cement and concrete industries and leads the way in building a sustainable future for the world.

### Geoprime<sup>®</sup> benefits

- Easy to incorporate into current production – No need for investments in production line
- Fast to implement: short ramp-up time after piloting
- Be part of the transformation towards a sustainable tomorrow. Reduce CO<sub>2</sub> emissions and support biodiversity

### What we offer

- Tailor made optimized mix design
- Support with LCA assessments and EPD documents
- Continuous technical support
- Sourcing of locally available sidestreams and activator chemicals
- Support with sales and marketing activities





Up to  
**80%**

CO<sub>2</sub> savings compared  
to cement-based  
hollow-core slab



**0%**

No cement  
required



**100%**

Same characteristics  
as cement-based  
concrete

## Why to choose Geoprime?

- Enables significant CO<sub>2</sub> savings for a construction project – Up to 80% reduction in CO<sub>2</sub> emissions compared to traditional construction materials
- Circular Economy solution – Reduces the use of virgin natural resources by replacing cement with local industrial byproducts
- Cost-effective solution – Allows the use of underutilized local side streams as cement replacement
- Adhere to the LEED and BREEAM certifications and ensures that the construction project reaches the highest sustainability criteria

## Key benefits

- Exceptional structural performance and efficiency
  - Increased flooring area (m<sup>2</sup>)
- Production efficiency
  - Constant quality with less waste
  - Excellent workability
  - Rapid initial strength development
  - Demoulding time: 8–10 h

## Equivalent to traditional cement-based hollow-core slab

- Measurements and tolerances
- Geometrical characteristics
- Weight (density)
- Thermal and acoustic characteristics
- Visual aspects, surface and appearance
- Adhesion to screeds and plasters
- Application, installation and connection
- Maintenance and durability
- Recyclability (no hazardous substances)

## Standards and Regulations

Geoprime hollow-core slab conforms with all product standard tests according to EN 1168 and BS EN 1168:2005 + A3:2011.

Shear strength test passed with excellent shear breaking.

Compressive strength

- 10 h  $\geq$  45 MPa
- 16 h  $\geq$  50 MPa
- 28d  $\geq$  60 MPa

Version available with Geoprime 95 mix design containing 5% cement content to comply with local concrete regulations where needed.

## Key measurements

- Thickness: 120 – 500 mm
- Width: 1200 mm
- Length, up to 20.0 m
- Amount, shape and measurements of the voids according to project design



## Contact for more info

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