

OPTIMA
Self Compacting Concrete



Uncompromising Durability

Technological superiority, architectural freedom,
and sustainable performance in every project



INTERBETON
A TITAN GROUP COMPANY

The Purest Form of Durability

INTERBETON, drawing on decades of expertise and a strategic focus on innovation, has developed OPTIMA—an advanced Self-Compacting Concrete (SCC) that redefines construction quality and contemporary architecture.

Thanks to its outstanding rheological behaviour, OPTIMA:

- flows and compacts without vibration
- completely fills even the most complex formwork and reinforcement cages
- delivers high-precision, high-aesthetic structures with a smooth, dynamic finish and distinctive sheen

It is the ideal solution for projects requiring high mechanical performance and refined architectural expression.

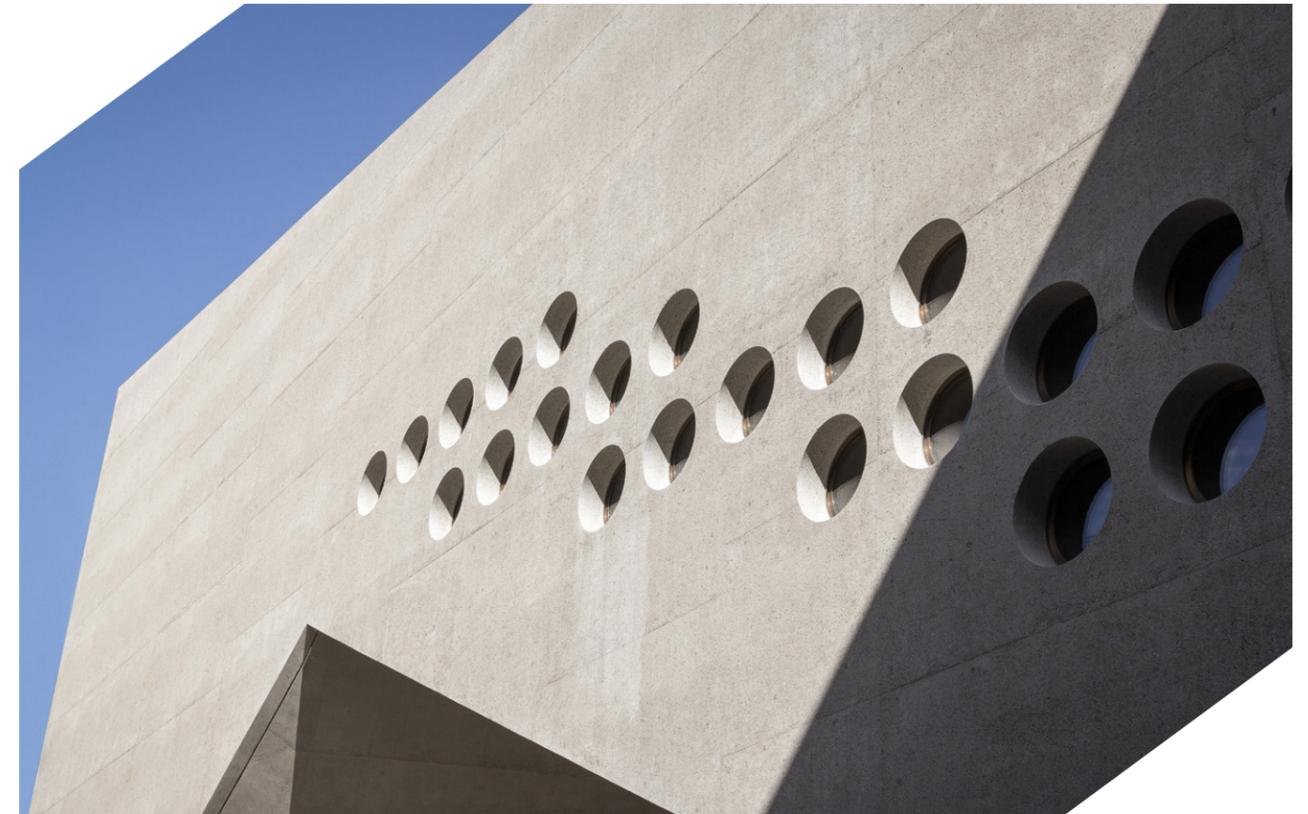
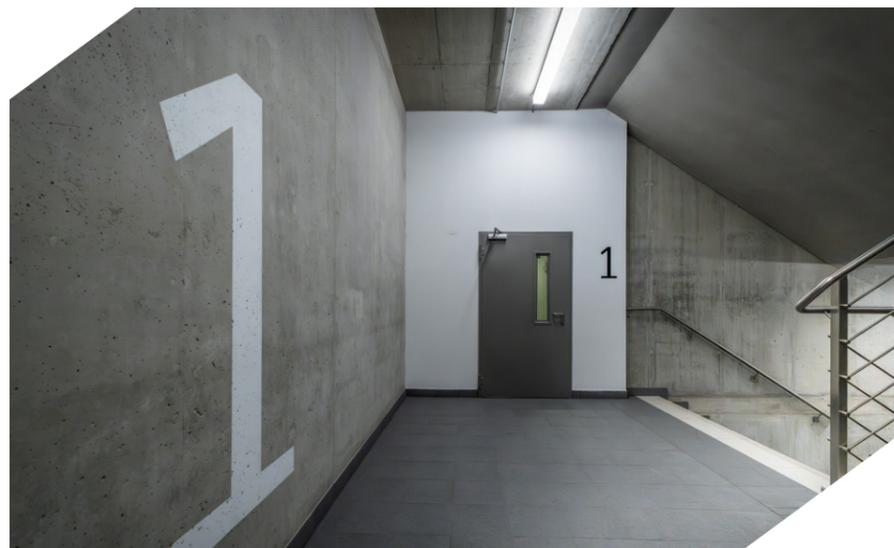
Technological Superiority with Architectural Freedom

OPTIMA brings technological excellence and architectural freedom together in a single material. It offers:

- reliable casting
- long-term durability
- and high surface quality

OPTIMA is the evolution of structural concrete that:

- reduces errors
- extends service life
- and simplifies site operations, making construction safer, more sustainable and more efficient than ever



Key BENEFITS

Uncompromising Durability

The self-compacting mix design prevents compaction issues, ensuring thorough consolidation, effective reinforcement encapsulation, and lasting durability.

Architectural Freedom & Technical Precision

Its fluid yet stable rheology enables complex geometries and exposed surfaces of high aesthetic quality, with minimal need for post-treatment or repair.

Sustainability in Construction and Operation

Designed for high durability in aggressive environments, OPTIMA reduces energy consumption during construction and extends the service life of the structure, reducing its carbon footprint compared to conventional concretes

* Environmental Product Declarations (EPDs) are certified documents that transparently present a product's environmental performance across its entire life cycle, including CO₂ emissions, energy use, raw materials, and other indicators, in accordance with international standards.

Technical Performance with Structural Accuracy

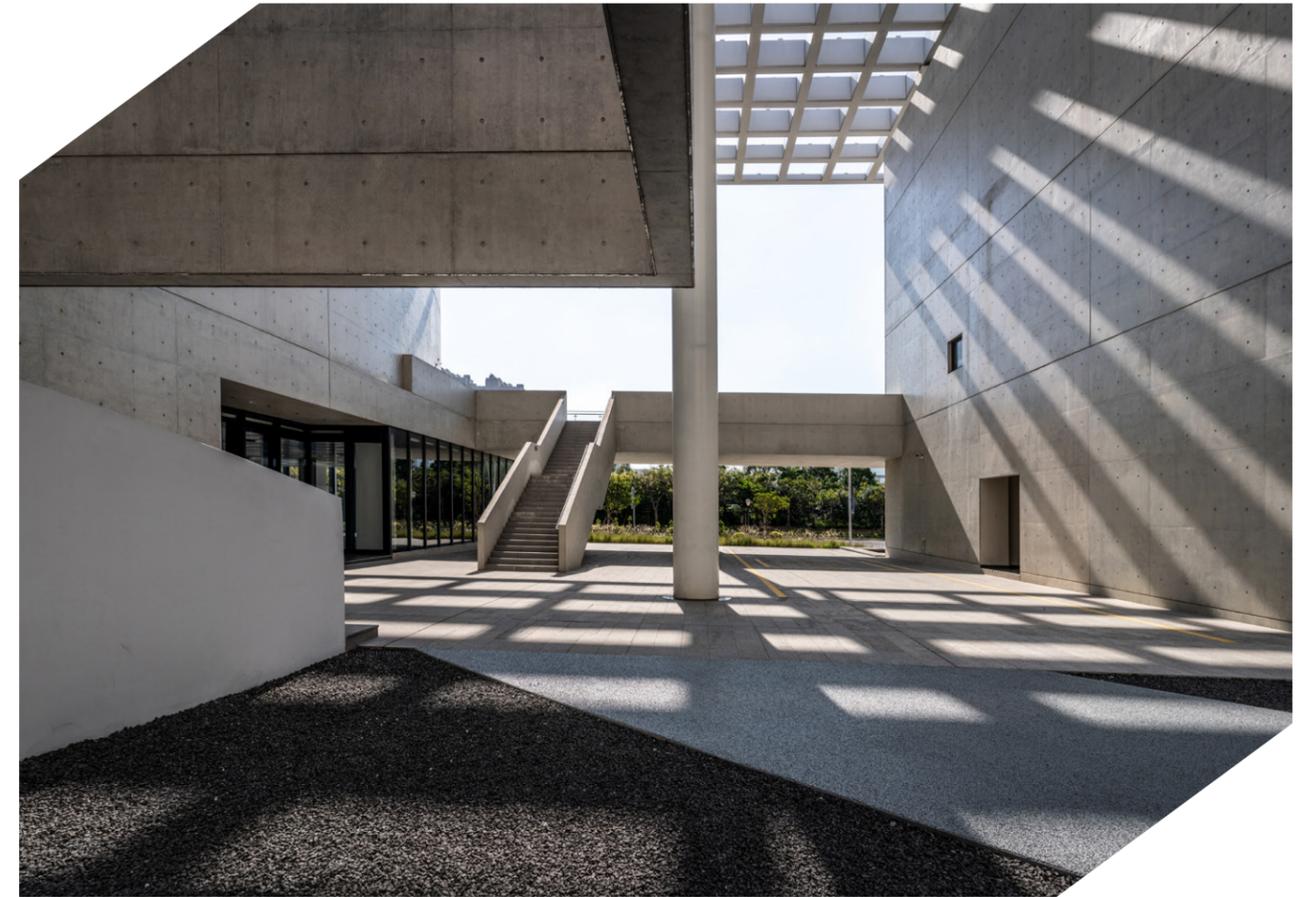
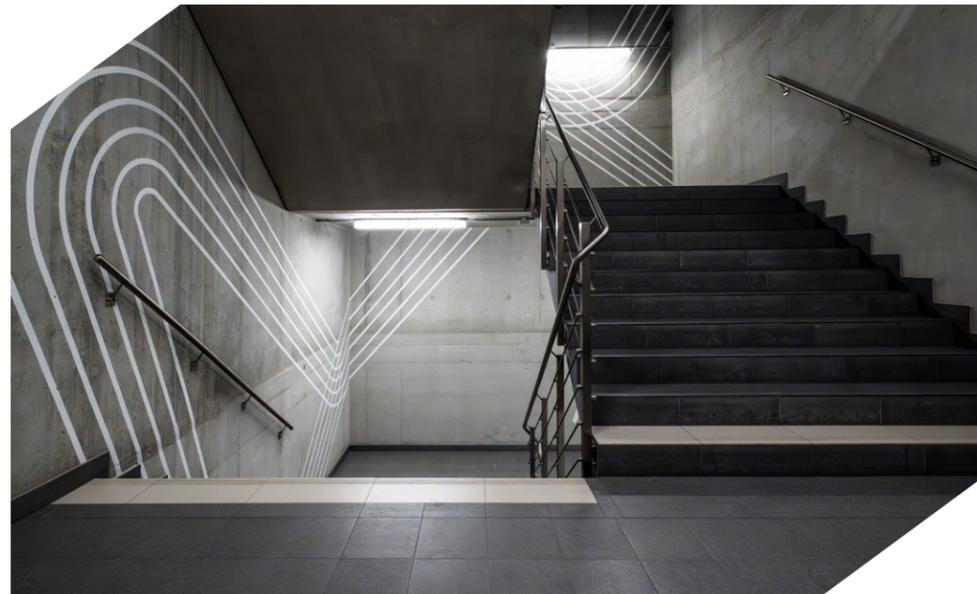
The technical properties of OPTIMA—such as high compressive strength and elastic modulus—support ambitious structural and architectural systems, including:

- space frames,
- slender elements,
- and complex expressive structures,

that OPTIMA can serve better than any conventional structural material.

Technical Characteristics

- Minimum compressive strength class: \geq C35/45
- Self-compacting behaviour:
 - Completely fills formwork and surrounds reinforcement without vibration
 - Eliminates the risk of voids, honeycombing, and paste–aggregate segregation
- Enhanced durability:
 - Optimised mix design and perfect consolidation improve resistance to CO₂ and chloride ingress over time
 - Improved corrosion protection and delayed onset of reinforcement attack
- Reflectance indices available, depending on mix design and locally available materials
- High elastic modulus – ideal for complex, demanding structural and architectural systems
- Stable rheology for surfaces with distinctive smoothness and sheen
- High pumpability
- Excellent workability with slump flow \geq 650 mm
- Full compatibility with reinforcement steel B500C
- Rheological properties maintained for \geq 90 minutes



Available Options

- Grey and earth tones, with the option of colour interventions
- Tailored aggregate grading according to application and architectural intent



OPTIMA is provided with reflectance indices as defined by the mix design study and the locally available raw materials.

Sustainability in Practice

The sustainability of OPTIMA is measured in tangible results—in energy saved, time saved, and cost reduced across the entire life cycle of the project.

- Casting without vibration eliminates the use of compaction machinery and unnecessary operations, significantly reducing energy consumption and CO₂ emissions during concreting.
- The simplified process enables faster on-site progress with fewer crews, reduced noise, and a cleaner working environment. As a result, projects are delivered more quickly, at lower construction cost and with greater accuracy.
- Perfect consolidation and homogeneity prevent defects, cracking and rework, dramatically reducing the need for surface finishing or repairs over the structure's lifespan.
- This translates into lower maintenance and ownership cost (TCO) and more resilient structures that maintain their value over time.

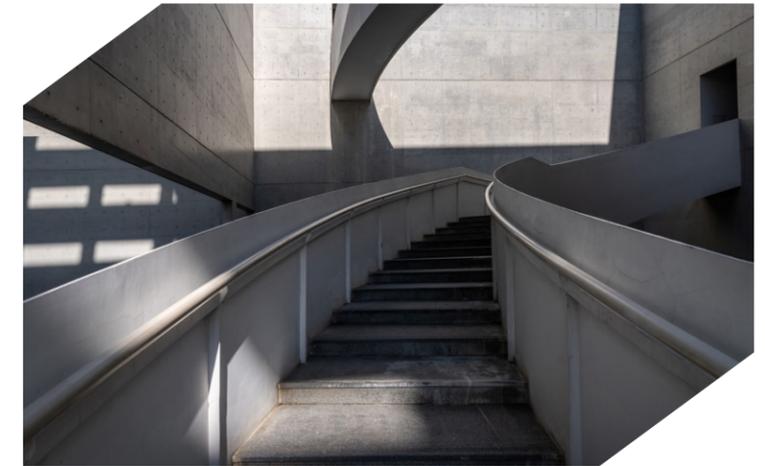
With OPTIMA, sustainability is not only environmental; it is also economic: less time, lower costs, and longer service life.



For more information, please refer to the OPTIMA Technical Description brochure.

Fields of Application

- Exposed concrete in interior and exterior surfaces
- Architectural elements with high dimensional accuracy and aesthetic demands
- Structural systems with high design requirements, such as space frames and complex geometries



On-Site Advantages

- Faster progress of works without intensive finishing interventions.
- Minimised waste and repairs thanks to perfect filling and consolidation.
- Cleaner, quieter and safer site due to the elimination of vibration equipment.

Additional Advantages of Self-Compacting Concrete (SCC)

OPTIMA leverages all the intrinsic advantages of SCC:

- Excellent surface quality without extra finishing
 - Minimised surface defects > less plastering, coating or remedial work
 - No honeycombing or poorly compacted zones
- No vibration required
 - Eliminates vibrators and compaction machinery
 - Reduces noise, energy use and health impacts from vibration
- Complete filling of complex formwork
 - Ideal for architectural details, sculptural elements and exposed components without joints or gaps
- Improved reinforcement protection
 - Homogeneous, dense matrix fully encapsulates rebar, reducing corrosion risk and extending service life
- Reduced labour demand
 - Fewer manual operations, higher safety and lower labour costs
- High productivity
 - Large volumes can be cast quickly, with consistent quality across the structure
- Increased design freedom
 - Enables bold, complex geometries that are difficult to achieve with conventional concrete

Strengthening the Sustainability Profile of OPTIMA

- Lower site carbon footprint
 - Less vibration equipment, lower fuel consumption, fewer CO₂ emissions and reduced noise.
- Long-term durability
 - Longer service life means fewer repairs, replacements, and less consumption of new materials.
- Support of circular economy principles
 - Fewer repairs and reconstructions > less waste and reduced use of natural resources.
- Cleaner construction site
 - Less material waste and dust, improved working conditions and reduced environmental disturbance.
- Alignment with Green Building Certifications
 - Contributes positively to schemes such as LEED and BREEAM, thanks to durability, energy savings and reduced emissions

Contact our team for more information
on how OPTIMA can support your project.

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