vesta™
Rating

Vesta™ Rating System

Pioneering the Future of Sustainable Construction

INTERBETON
A TITAN GROUP COMPANY

The Future of Construction: Why Sustainability Defines Value

For centuries, concrete has been the backbone of the built environment, providing strength, safety, and architectural freedom. It enabled cities to grow, infrastructure to endure, and communities to thrive. Today, the construction sector is called upon to respond to a new challenge: not only on the technical excellence or durability of a building, but also how responsibly they are designed, built, and operated.

Carbon emissions, regulatory requirements, energy costs, financing criteria, and asset value are converging into a single reality. Sustainability is now a defining factor in quality, competitiveness, and long-term relevance. Sustainable construction is not about compromise but about smarter choices. It is about materials that deliver high performance, lower life-cycle costs, and resilience in an increasingly demanding environment.

At INTERBETON, we believe the future belongs to those who can measure what matters, make informed decisions, and act with purpose. This raises a fundamental question: how can concrete, the world's most widely used construction material, become part of the climate solution rather than part of the problem?

Why This Matters Now

Whether you are designing, developing, constructing, financing, or regulating a project, sustainability is no longer optional. The key issue today is not whether environmental performance matters but how it can be measured, documented, and demonstrated credibly.

Across Europe and Greece, the construction landscape is rapidly evolving. Whole-life carbon assessments are becoming standard practice, environmental performance increasingly influences financing terms and asset valuation, ESG criteria shape procurement and investment decisions, and buildings with poor environmental profiles face declining value and marketability. In this context, materials are evaluated not only for strength or initial cost but also for the long-term impact they leave behind. This is precisely where INTERBETON's approach begins.

INTERBETON's Commitment to a Greener Future

INTERBETON plays a vital role in TITAN Group's sustainability journey by using the expertise and the available raw materials required to produce ready-mix concrete with a significantly reduced carbon footprint. This commitment extends in the research direction for the use of recycled raw materials in concrete, as provided by the regulatory framework, in the continuous optimization of production processes to reduce energy consumption, as well as through certifications such as Zero Waste to Landfill and water management—achievements that INTERBETON was the first to attain in the Greek market.

At INTERBETON, performance and sustainability go hand in hand to deliver solutions that enable people, cities, and industries to thrive.

We have one clear mission: To build a better world. Together.

Our mission aligns with the EU Green Deal's 2050 climate neutrality goal, including a target to cut CO_2 emissions by 35% by 2030, through regulations such as the EU Taxonomy, the forthcoming EPBD recast requiring whole-life carbon assessments, and the Digital Product Passport (mandatory from 2027) to promote life-cycle thinking and circular economy practices.

VESTA™: Measuring What Matters

Driven by our mission to cut CO_2 emissions by 35% by 2030, we are committed to transforming the construction industry through innovation and transparency. In a bold step toward sustainability, we introduced VESTA™ – an advanced labeling and rating system that evaluates the environmental performance of our concrete products. Referred to as the “green ID,” VESTA™ provides a clear indicator of each product’s carbon footprint per unit of strength, enabling quick, meaningful comparisons.

VESTA™ empowers builders and stakeholders by providing clear, accessible information on the carbon footprint in relation to the performance of each product. We believe informed choices lead to better outcomes – for our cities, our planet, and future generations. With VESTA™, beyond offering materials, we’re helping shape responsible construction from the ground up.

Understanding the VESTA™ Rating System

Rating systems help the construction ecosystem to make smarter, more responsible choices. Just as energy labels on appliances guide consumers toward efficient options, sustainability ratings for building materials empower everyone—from homeowners to major developers—to reduce environmental impact without sacrificing performance.

Developed by INTERBETON, the VESTA™ labeling and rating system provides clear, transparent insights into the environmental performance of concrete products. It enables confident, informed decisions that align with today’s sustainability goals and carbon reduction targets.

VESTA™ assigns each concrete mix a grade—U, A, B, or C—based on its carbon dioxide equivalent per unit of nominal strength (kg CO_2eq/MPa), helping users compare impacts and choose responsibly.

Since July 2022, VESTA™ has functioned as a dedicated internal framework, built on robust quality management practices and subject to rigorous audits by BQV (Business Quality Verification) – an organization accredited by ESYD, the Hellenic Accreditation System. This ensures the framework’s accuracy, transparency, and reliability.

Within the VESTA™ system, concrete mix designs are rated U (Ultra), A, B, or C, based on their carbon dioxide equivalent per unit of nominal strength (kg CO_2eq/MPa):

U	A	B	C
Less than 5.50 kg CO_2eq/MPa	Less than 7 kg CO_2eq/MPa	Between 7 and 8.50 kg CO_2eq/MPa	Above 8.50 kg CO_2eq/MPa

U-rated mixes represent the most sustainable option, offering the lowest carbon footprint per unit of strength. Among mixes within the same performance class, a higher VESTA™ rating indicates a more environmentally responsible choice.

VESTA™: Verified Sustainability in Every Mix

VESTA™ provides independently verified information on the environmental performance of ready-mix concrete per unit of strength, in accordance with Environmental Product Declarations (EPDs), which INTERBETON was the first to obtain in the Greek construction market.

The system currently applies to INTERBETON's most widely used concrete mix designs and is gradually expanding to include more formulations. As TITAN Group's green investments continue to advance, VESTA™ ratings will evolve to reflect ongoing reductions in CO_2 emissions – supporting the Group's goal of carbon neutrality by 2050.

This progress underscores INTERBETON's ongoing commitment to improving both the environmental footprint and technical performance of its products, while introducing next-generation, sustainable concrete solutions to the Greek market.

INTERBETON aligns with EU laws and sustainability targets by prioritizing low-carbon concrete solutions, applying life cycle assessments, and issuing Environmental Product Declarations (EPDs) to provide transparency on the environmental impact of its products. Backed by EPDs that comply with ISO 14025 and EN 15804:2012+A2:2019 standards.

Why VESTA™- Certified Concrete matters?

Choosing VESTA™-certified concrete empowers individuals and construction professionals to make meaningful contributions to a more sustainable built environment. Whether you're building a single home or managing a major infrastructure project, VESTA™ provides the clarity to understand your environmental impact – and the tools to reduce it. It's a step toward smarter, greener construction, where innovation meets both personal and corporate responsibility.

Beyond reducing CO_2 emissions, VESTA™ certification supports broader project goals. Certified materials can boost eligibility for green building certifications such as LEED, BREEAM, DGNB and the EU Level(s) framework – boosting long-term value through improved energy performance and enhanced market appeal while mitigating brown devaluation risks.

Brown devaluation risk refers to the economic downside of not transitioning to a sustainable, low-carbon economy. Countries that fall behind in environmental action could see their assets, trade, and reputation "devalue" in a global economy increasingly focused on sustainability.

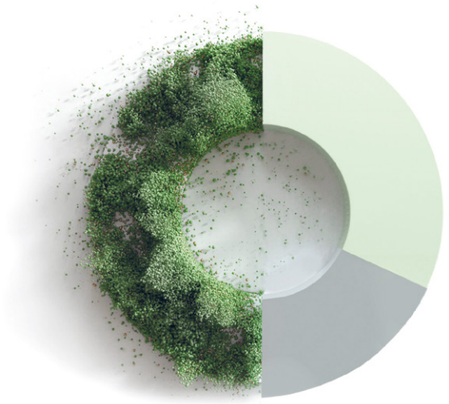
As sustainability becomes central to public and private development, VESTA™ positions your project for regulatory alignment, future-readiness, and ESG success. It's more than a label – it's a commitment to building with purpose, accountability, and impact.

Key Benefits

- **Lower CO_2 emissions**
- **Support for LEED, BREEAM, DGNB and Level(s) certifications**
- **Stronger alignment with ESG and regulatory targets**
- **Enhanced building value and appeal to sustainability-focused clients**

35 %

reduction in CO_2 by 2030



Why VESTA™ Should Matter to You

For Developers & Investors

VESTA™ provides a clear framework for reducing investment risk in a rapidly changing regulatory and financial environment. By selecting concretes with verified environmental performance, developers and investors can safeguard asset value, improve long-term resilience, and align projects with ESG-driven financing requirements.

Key Benefits

- Reduced brown-devaluation risk
- Higher asset resilience and long-term value
- Stronger ESG alignment for financing and reporting
- Opportunity for differentiation and recognition

A VESTA™-certified concrete choice helps protect your investment not only at delivery, but throughout the entire life cycle of the asset.

For Architects & Engineers

VESTA™ equips designers with reliable, comparable environmental data that integrates seamlessly into the design process. It supports informed material selection while maintaining full confidence in structural performance, durability, and safety.

Key Benefits

- Clear, comparable data to support design decisions
- Easier integration into LEED, BREEAM, DGNB, Level(s)
- Confidence that technical performance and sustainability coexist
- Stronger project narratives for clients and strong differentiation

VESTA™ allows you to design responsibly without compromising creativity or safety.

For Contractors

As sustainability becomes a standard requirement in both public and private projects, VESTA™ offers a competitive advantage. It reduces uncertainty, strengthens tender submissions, and ensures compliance with evolving environmental criteria.

Key Benefits

- Proven, audited environmental performance by third-party verification
- Differentiation and readiness for public tenders and private procurement
- Materials aligned with evolving regulations
- A competitive edge as sustainability becomes standard

VESTA™ helps contractors deliver projects that meet today's specifications and tomorrow's expectations.

For Public Authorities & Regulators

VESTA™ supports evidence-based policy implementation by translating environmental targets into measurable outcomes. It enables transparent procurement, consistent evaluation, and alignment with European climate objectives.

Key Benefits

- Transparent, verifiable environmental data
- Alignment with EU climate and construction policies
- Support for low-carbon procurement strategies
- Measurable contribution to national climate targets

VESTA™ transforms policy ambition into practical, enforceable action.

For Private Individuals & Homeowners

Choosing VESTA™-certified concrete means investing in buildings designed for the future. It ensures lower environmental impact, long-term value, and confidence that sustainabilityis embedded in the construction itself.

Key Benefits

- A home built with lower environmental impact
- Higher long-term value and resale appeal
- Confidence in healthier, future-ready construction
- A tangible contribution to climate responsibility

VESTA™ makes sustainability visible, credible, and meaningful, even at the individual level.

EPDs and the Path to Low-Carbon Concrete

Each VESTA™-certified product includes a third-party verified Environmental Product Declaration (EPD), documenting the full life-cycle emissions of the concrete—from raw material extraction to end-of-life recycling. These Type III EPDs, issued by INTERBETON and verified by Eurocert (accredited by ESYD), comply with international standards ISO 14024 & EN 15804, ensuring transparency and consistency.

The determination of the equivalent carbon footprint of each concrete mix design is calculated through Life Cycle Assessment (LCA) and includes the production and transportation of raw materials, energy use and production at the concrete plant, transportation, and incorporation of the concrete into the project. It also accounts for the carbon footprint associated with maintenance during the operational phase of the structure throughout its entire expected life cycle, up to demolition and the removal of demolition materials at the end of its useful life.

INTERBETON is employing the latest and most advanced technologies to optimize its concrete mix designs, carefully selecting raw materials with a reduced carbon footprint, whilst sourcing from the most efficient suppliers in terms of logistics in order to actively minimize transportation-related CO_2. In addition to INTERBETON's efforts, the TITAN Group is committed to reducing these impacts through alternative fuels, energy efficiency, and low-carbon technologies. With significant investments, innovation, and a focused climate strategy, TITAN is driving progress toward sustainable cement and concrete solutions.

VESTA™-Certified Solutions from INTERBETON

INTERBETON has responded to the growing demand for sustainable construction by developing a range of VESTA™-certified concrete solutions that support the shift toward greener building practices:

Indicatively

VELTER™ (U-rated): Reduces carbon emissions by up to 30% vs mixes of the Greek market through optimized design and eco-conscious production.

ANTAEUS HPC (A+ rating): High-performance concrete (C50/60 έως C90/100) with EPD, validated and optimized in collaboration with Democritus University of Thrace.

VIRIDIA (A+ rating): Top-tier mix designed for enhanced durability, beyond the basic requirements of the regulatory frameworks, designed in collaboration with research partners, with technical characteristics developed alongside the Democritus University of Thrace.

VESTA™-certified products with strong certification performance enable construction projects to significantly reduce their carbon footprint while maintaining high standards of strength, durability, and safety. INTERBETON's commitment to these solutions underscores its position as a leader in sustainable construction – advancing a more responsible and resilient built environment across Greece.

The Question That Changes Everything

Sustainability in construction has moved beyond intention; it now demands measurable proof. As you specify, design, tender, or build, the most critical question is no longer whether a concrete solution meets structural requirements alone. It is whether it is VESTA™-certified. Because the materials you choose today directly shape the long-term value, resilience, and environmental responsibility of what you build tomorrow.

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Contact our team for more information
on how the VESTA Rating System
can contribute to your project.

main@interbeton.gr

INTERBETON
A TITAN GROUP COMPANY

INTERBETON
22A Halkidos Str.
11143 Athens
T. +30 210 2591 111
interbeton.gr