

# UNLEASH THE CONCRETE

## A dedicated team at your service

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Smart-Up UHPC

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UP UHPC  
BY VICAT

smart  
up



**UHPC**  
**BY VICAT**

## UHPC SMART-UP

**Smart-Up is the range of Ultra-High Performance Fiber Reinforced Concrete by Vicat.**

Thanks to their high microfiber content, UHPFRC (Ultra-High Performance Fiber Reinforced Concrete) stands out for its exceptional ductility in both flexion and tension. Its micrometric formulation ensures optimized compactness, providing enhanced fluidity and durability. This high-performance material, known for its superior mechanical properties, paves the way for new applications that combine longevity, aesthetic, and creativity. Versatile, it is suitable for both the repair of civil engineering structures and the design of fine architectural elements.



## APPLICATIONS



### Civil Engineering

- New construction / Renovation / Reinforcement of civil engineering structures and buildings
- Protection / Sealing against aggressions and abrasion



### Architecture

- Building envelope
- Prefabricated elements



### Design

- Urban furniture / Artwork
- Interior design

## BENEFITS



### Durability of civil engineering structures

UHPC stands out for its unique composition, ensuring exceptional durability against wear, corrosion, and external aggressions.



### Mechanical performances

UHPC offers exceptional mechanical strength, along with enhanced protection against impacts and abrasion.



### Aesthetic surfaces

UHPC seamlessly integrates with textured finishes, offering diverse aesthetic surfaces, while being tintable for unlimited customization.



### Molding of complex shapes

UHPC enables innovative and creative architectural designs due to its flexibility, offering to the architects a great freedom in their designs.



# UHPC COMPOSITION

## OUR SERVICES

- Design assistance / Preliminary estimation
- Tender phase support
- Adapted formulations for each project (civil engineering / building / architecture)
- Mixer rental
- Assistance during mock-up trial and suitability tests
- On-site training for operators
- Technical assistance and monitoring during production, on site or in prefabrication plants

## OUR LOCATION AREAS

Dedicated local teams supported by long-term partnerships :

- Europe (France, Switzerland, Belgium, Spain, Portugal, ...)
- North America

## FORMULATION

A dense, reinforced, and durable matrix capable of withstanding the most extreme stresses.

- Cementitious matrix with a micrometric structure
- High dosage of cement and additives
- Fine aggregates
- Highly microfibers dosed
- Additives and water



**> 130 MPa**

Compressive strength



**> 8,5 MPa**

Tensile yield strength



**4 à 12 MPa**

Post-cracking tensile strength



**< 6%**

Water porosity