

# SMART UP

**ULTRA-HIGH PERFORMANCE  
FIBER-REINFORCED CONCRETES**

ARCHITECTURE, DESIGN, CIVIL ENGINEERING  
AND BUILDINGS







LA CHABOTTE BRIDGE, A51 (ISÈRE, FRANCE)



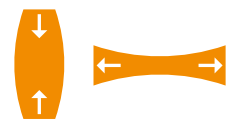
FLON DISTRICT, LAUSANNE (SWITZERLAND)



WASHSTAND PANDORA, THE CONCRETE FACTORY, CREABETON

**SMART<sup>UP</sup>**, THE INTELLIGENCE AND ELEGANCE OF ULTRA HIGH-PERFORMANCE FIBER-REINFORCED CONCRETE, WITH ASTONISHING PROPERTIES, CREATED FOR STRUCTURAL, ARCHITECTURAL AND DESIGN PROJECTS.

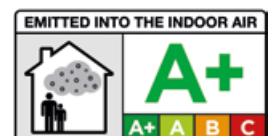
- ▼ The exceptional compressive and tensile strengths of SMART-UP make the creation of thinner sections and longer-span elements possible, delivering unique freedom of design and construction performance gains.
- ▼ The high durability of SMART-UP, with its excellent resistance to external attacks (climate, mechanical, fire, ageing), increases the longevity of the structure, enhances public safety and considerably reduces maintenance costs.
- ▼ The unique elasticity of SMART-UP allows architects and designers to create complex shapes and meet slim structures and skin finish specifications. Because it is easy to use, mold, texturize and color, SMART-UP offers new creative options.



ULTRA-HIGH COMPRESSIVE AND TENSILE STRENGTHS



SUPERIOR DURABILITY







LA CHABOTTE BRIDGE, A51 (ISÈRE, FRANCE)

## STRUCTURAL

Innovative and durable, SMART-UP<sup>®</sup> offers unparalleled structural guarantees for the design, construction and renovation of civil engineering and buildings of the future.

- ▼ The structure is lightened thanks to SMART-UP's exceptional compressive ( $> 130$  MPa) and tensile ( $> 6$  MPa) strengths. Up to 6 times better than a conventional concrete, these remarkable mechanical performances can be achieved without the use of passive reinforcement.
- ▼ The longevity of the structure and durability of the concrete are the result of SMART-UP's extremely compact matrix (porosity  $< 9\%$ ) and low air permeability.
- ▼ The elastic behaviour of SMART-UP gives freedom for the design of structures and unusual architectural elements.
- ▼ SMART-UP optimises construction, combining cost-control (speed and performance of construction) and work-site safety.
- ▼ Resource-efficient: Vicat's ultra-high performance fiber-reinforced concrete, SMART-UP, optimizes structure scaling, manufacturing control and material savings.



PRETENSIONED ROOF  
Ramatuelle (Var, France)

© Lisa Riccardi

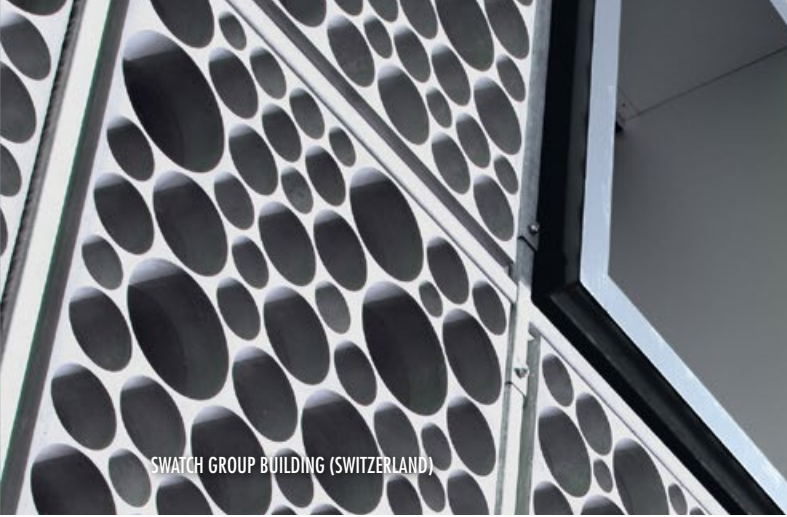


LUMIÈRES STADIUM  
Lyon (Rhône, France)



BOULINGRIN COVERED MARKET  
Reims (Marne, France)





SWATCH GROUP BUILDING (SWITZERLAND)



## ARCHITECTURAL

As a creative concrete, SMART<sup>UP</sup> is an ultra-innovative material which provides solutions adapted to all architectural requirements, in step with construction fashions thanks to the assets of the mineral material.

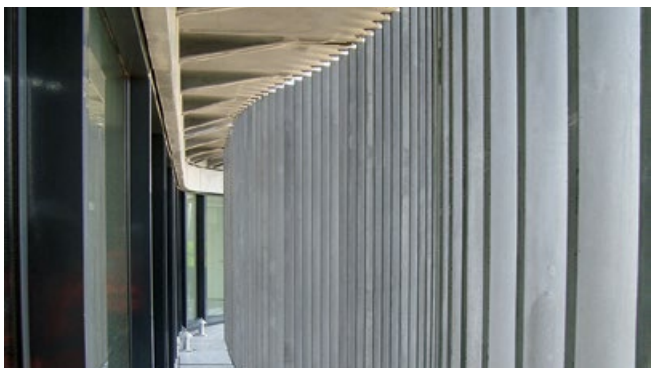
- ▼ Designed for elegant, slim, openwork or long-span and voluminous elements, SMART-UP allows customisation and unlimited reproduction possibilities.
- ▼ The workability of SMART-UP (regular formwork filling, excellent fluidity and excellent compacity) guarantees uniform results and a smooth finish.
- ▼ Resistant to impacts and aggressive environments, SMART-UP offers the benefits of low maintenance and high durability, for indoor as well as for outdoor projects.
- ▼ Mineral material, SMART-UP uses recyclable local resources which makes it an environmentally friendly solution.



SKYFLOR® VEGETALISED WALLS  
Geneva (Switzerland)



FLON DISTRICT  
Lausanne (Switzerland)



HEAD OFFICE OF ITER  
Cadarache (Bouches-du-Rhône, France)



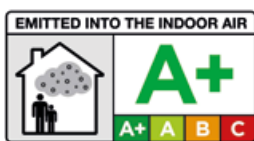


VERSUS BENCH, CREABETON (SWITZERLAND)

## DESIGN

Elegant contemporary concrete, SMART-UP's combination of functionality and aesthetics sets it apart design-wise. For all functional and decorative applications, concrete brightens up our daily lives.

- ▼ SMART-UP enhances creativity, integrating perfectly into the urban landscape, while combining harmoniously with other materials.
- ▼ Through its flexibility and diversity of textures, SMART-UP can take on all shapes and forms, without losing its lightness and luminosity.
- ▼ SMART-UP perfectly reproduces all finishes for a great look: colors, textures and surface effects.
- ▼ Made out of cement, aggregates and sand, SMART-UP respects the environment.
- ▼ Labelled A+, SMART-UP contributes to improving buildings indoor air quality.



CREABETON CONCRETE PANELS (Switzerland)



NESSI STAIRCASE, MaDe WORKSHOP Grenoble (Isère, France)



WORKTOP Ligerz (Switzerland)

---

# THE MAN AT THE HEART OF THE CREATIVE PROCESS... PRODUCING EXCEPTIONAL RESULTS

The multiple facets of SMART-UP can only emerge with the help of the craftsman's hand.

The workshop manufacturing phase requires know-how and attention to detail, for the creation of all elements, whether structural or decorative, very big or as small as the handle of an OPINEL® knife.

Skill and passion for the product characterise our partners, precasters, contractors and project managers with whom we validate our projects.

SMART-UP is worked with pinpoint precision; you can count on us to help you through the tests and developments required to bring your projects to life.





## **UP** ULTRA-HIGH PERFORMANCE THE VICAT WAY

The Vicat Group's technical expertise, combined with its innovative spirit, means you benefit from exceptional solutions based on cement and concrete for anything involving high technicity, high creativity or high environmental demands.

**VICAT**

Tél. +33 (0)4 74 18 40 10  
smart@vicat.fr

[www.ciment-vicat.com](http://www.ciment-vicat.com)

### **Photo credits**

COVER: Beautiful Steps, Long/Baumann, Rives de Saône Lyon (69), Grand Lyon  
INSIDE PAGES: Nicolas Rabin, Tom Baumann, Restoy Jean-Philippe Regard Du Ciel, Lisa Ricciotti, Cyrille Laze, Creabéton Matériaux, Vicat

### **Design, layout**

agence MMAP  
06-15