



Italcementi Group

A world class local business

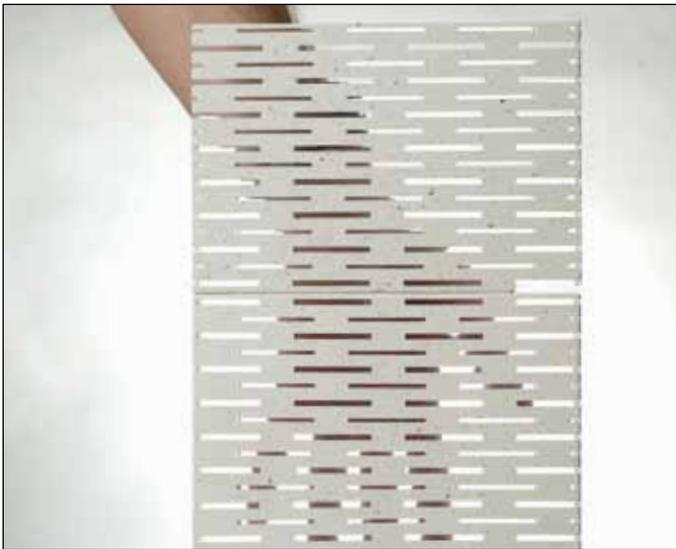
i.light



**Transparent
cement**

What if cement could light up spaces?

Discover **i.light**, the world as never seen before.



i.light is a precast concrete panel that can transmit light. Obtained by bonding special resins in an innovative mortar, i.light not only lets natural and artificial light in but also allows seeing images or objects placed behind the panel and creating a surprisingly transparent effect.

i.light is just one of the products resulting from the continued commitment of Italcementi Group to developing innovative solutions for the building construction industry.

How is it born?

i.light has been created at the request of the architect in charge of designing the Italian Pavilion for Expo Shanghai 2010, who wanted a cementitious material capable of transmitting light.

Italcementi Group developed a completely new material, demonstrating that the building materials industry is only apparently traditional. This product is set to change the typical mindset of those who see walls as darkening elements, enhancing their value as an innovative way to transmit light.

The panel developed for Shanghai.



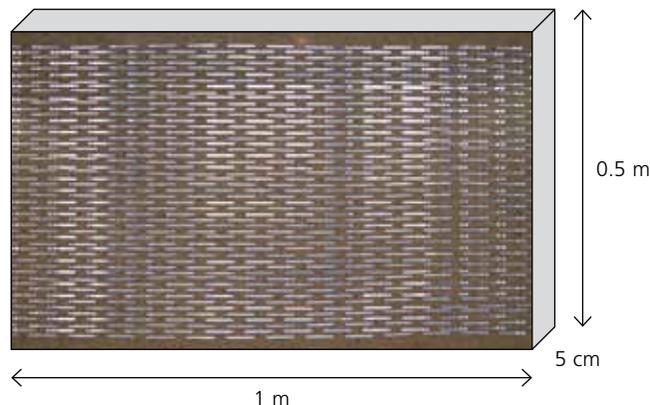
50 Kg



20% of transparent surface



Rectangular-shaped resins



Custom solutions

- › Resin shape and color
- › Mortar color
- › Panel dimension





First realization.

"Architecture is the learned game, correct and magnificent, of forms assembled in the light."

Le Corbusier

The Italian Pavilion for Expo Shanghai 2010 is the first building ever made with **i.light**.

3,774 transparent panels of i.light have been produced and used to cover a total surface of 1,887 sq. m., amounting to about 40% of the Pavilion's entire shell. The effect was to create a sequence of light and shade constantly changing throughout the day.



During the day, the outside light filters in allowing a less intensive use of artificial light inside the building and creating a new and suggestive environment as the daylight intensity varies.

At night, the inside light filtering towards the outside makes the building come alive and offers an unrivalled visual experience.

Because of the huge success of the Italian Pavilion, with more than 6 million visitors in 5 months, the Chinese Government has decided not to dismantle the building and to keep it as a permanent pavilion.

The structure will therefore continue to stand out as a radiant masterpiece among 2010's best inventions.



Please see **i.light** technical data sheet for additional information about performance or visit us at www.italcementigroup.com

i.light winner of the Popular Science Magazine "Best of what's new 2010" Award



Application of the panels.



- 1 Roof covering
- 2 Walls
- 3 Floors
- 4 Indoor
- 5 Decorative
- 6 Balconies
- 7 Stairs

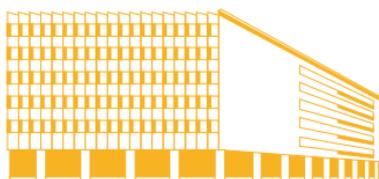
i.light is a versatile panel suitable for non-structural application on a substructure.



Forever transparent and white with TX Active.

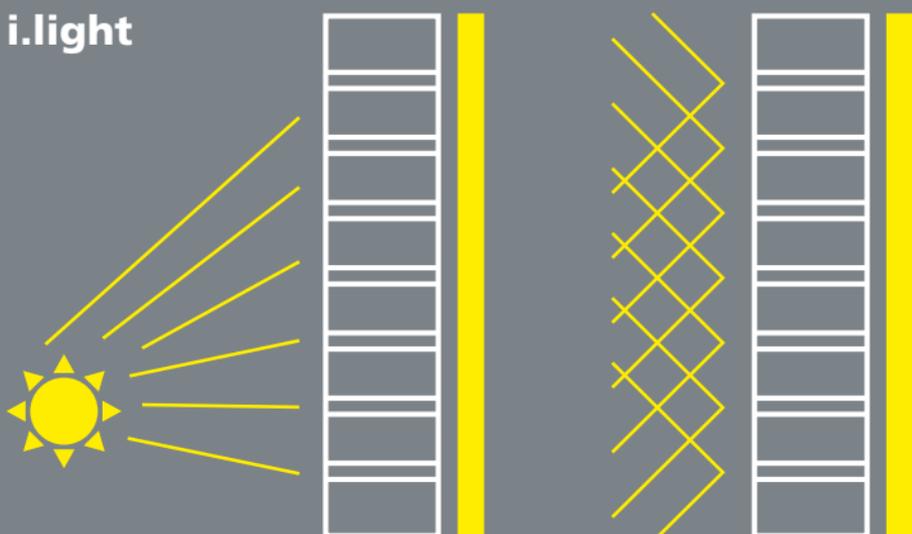
Like all other Italcementi Group products, **i.light** can be formulated by adding TX Active, the innovative photocatalytic principle, developed and patented by Italcementi Group, for cement-based products.

Thanks to this technology, Italcementi Group is able to impart self-cleaning and smog-eating properties to **i.light**.



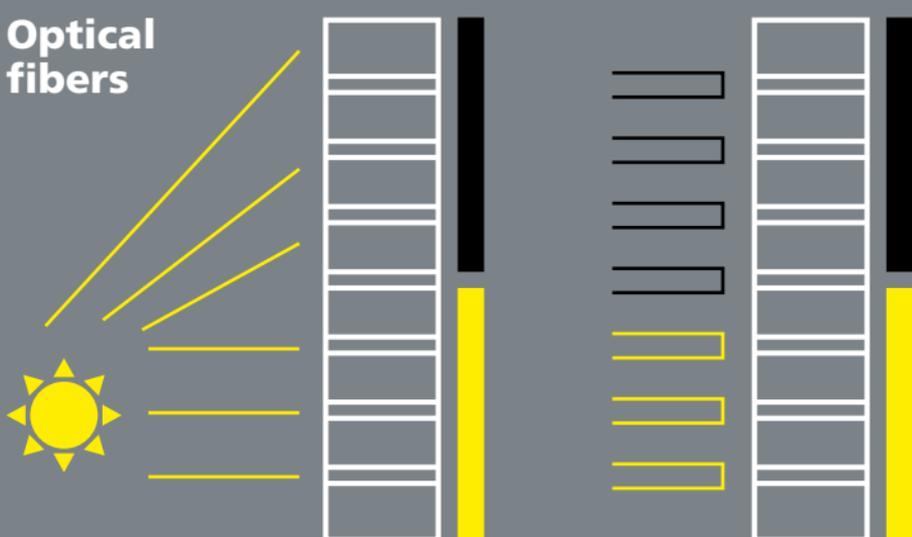
How does i.light work?

i.light



i.light allows both light cone and reflected light to penetrate

Optical fibers



Optical fibers allow only perpendicular light rays under direct light conditions to pass

Clear and bright

- › Greater brightness thanks to a wider light cone passage
- › The resin elements provide greater light transmittance than glass

Durable

- › **i.light** is as durable as a traditional precast panel
- › Resistant to ageing caused by UV radiation

Sustainable

- › Energy saving performance changes according to design features

Cost efficient

- › **i.light** costs at least 10 times less than any optical fiber panel



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With sales exceeding 4.7 billion Euro, **Italcementi Group** is the fifth largest cement producer in the world. The Group's companies combine the expertise, know-how and cultures of over 20 countries across four continents, boasting an industrial network of 55 cement plants, 10 grinding centers, more than 490 concrete batching plants, and a staff of some 20,000.

Italcementi Group is a member of WBCSD, the World Business Council for Sustainable Development, and has adhered to the UN Global Compact, a strategic initiative promoted by the United Nations to align companies' operations and plans with universally accepted principles in the areas of human rights, labor, environment and ethics.



i.nova is the Italcementi Group's flag for innovation and research committed to the building community and focuses on developing new sustainable materials for use by architects and designers. Under i.nova, the multidisciplinary skills of the Group's innovation community in chemistry, physics, geology and engineering team up with internationally renowned scientific and academic institutions to satisfy the challenging needs of both architects and building construction professionals, in terms of versatility, design, aesthetics, safety and energy efficiency.

With i.nova, the Group aims to anticipate market trends and needs through a new cultural approach to building construction, where cement can be rediscovered as the raw material of beauty and sustainability. A new concept of usefulness, increasingly oriented toward innovation and sustainability.