



THE ADVANTAGES



Transmits uniform, diffuse, glare-free light

- Positive effects of natural light on human beings
- Glare and areas of contrast attenuated
- Savings in shading systems



Multiplies the thermal performance of an untreated polycarbonate wall two-fold

- Energy savings



Improves the noise reduction index

- Reduced noise



Moisture resistant

- Disappearance of mould in the walls



GLAZING

Façade complex consisting of structured polycarbonate walls filled with a translucent super-insulating material with exceptional properties: LUMIRA™ aerogel

FOR FURTHER INFORMATION...

In order to highlight the achievement of these objectives and to prepare for the arrival of the new RT 2020, the French government has introduced the voluntary label "Énergie Positive et Réduction Carbone" (E+C-). Aimed at new construction, its purpose is to implement the concept of an "Energy-Positive Building".

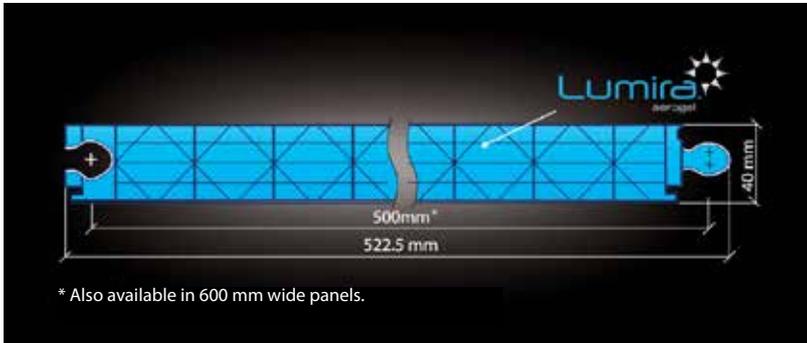
Insulating to produce more energy than it consumes, an RT 2020 building must reduce its energy needs and make maximum use of free energy sources like natural light.

CLAIRISOL from the SKYDÔME range will help you to prepare for the construction of the high-performance buildings of tomorrow and work with the new regulations to achieve energy excellence with increasingly high-performance equipment.



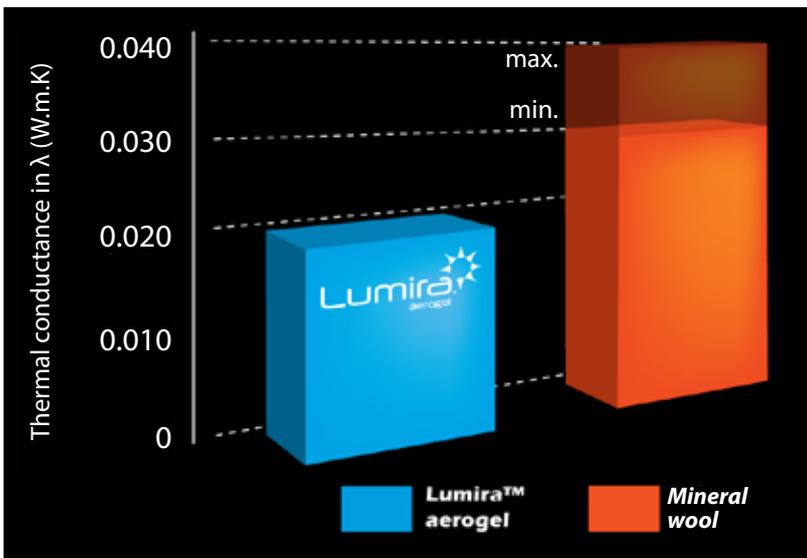
— PRINCIPLE OF THE CLAIRISOL® FAÇADE

CLAIRISOL® is a façade complex consisting of structured polycarbonate walls filled with a translucent super-insulating material with exceptional properties: LUMIRA™ aerogel.



— THERMAL PROPERTIES

Thermal conductivity comparison between LUMIRA™ aerogel and mineral wool.



Significant reduction in heat loss

- Less heating
- Energy savings

— WHAT IS LUMIRA™ AEROGEL?



LUMIRA™ aerogel is composed of amorphous silica. Silica aerogel is extremely lightweight with exceptional porosity (95% air and 5% silica) giving it outstanding properties. Not only is it a very effective insulator (of all the insulation used in the construction industry, it has the lowest thermal conductivity), but it is the first translucent insulator in the world.

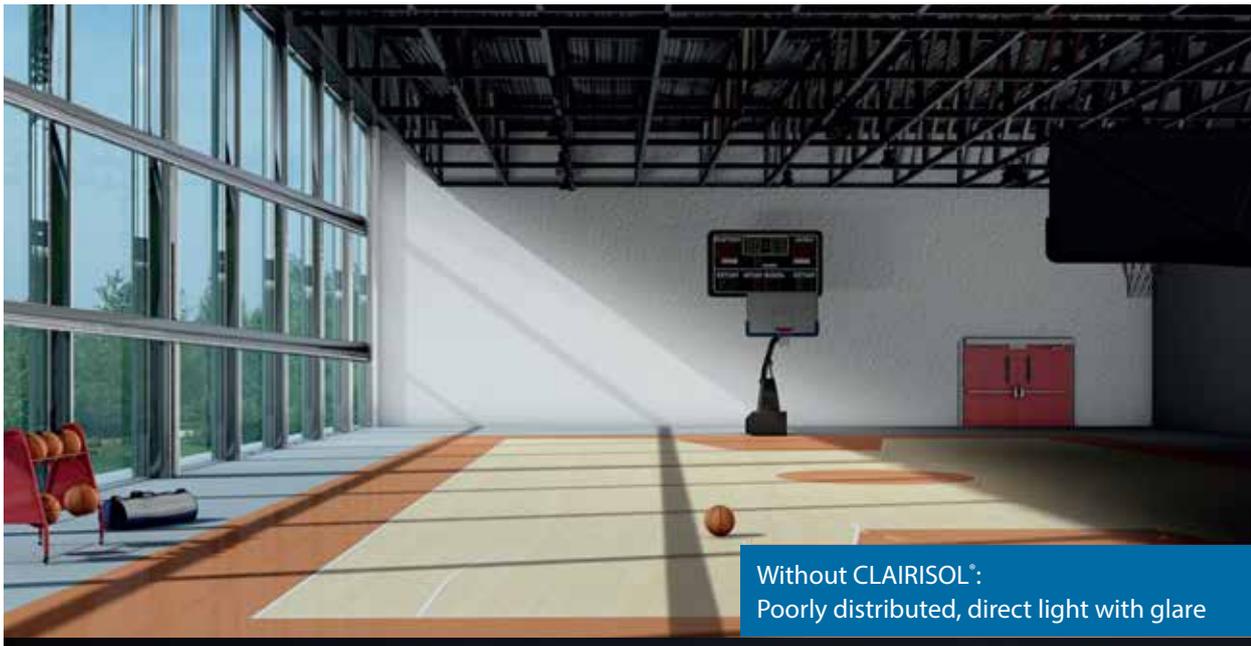
— WHAT'S MORE, LUMIRA™ AEROGEL...

- is stable to UV and does not fade when exposed to sunlight,
- does not change the reaction to fire classification of the polycarbonate into which it is injected,
- is non-combustible and does not generate toxic fumes,
- does not pose any health risk under normal usage conditions.

— SOME APPLICATIONS

- Shopping centres
- Schools
- Sports buildings
- Hospitals
- Housing
- Industrial buildings
- Offices





Without CLAIRISOL®:
Poorly distributed, direct light with glare



With CLAIRISOL®:
Uniform, diffuse light

— CLAIRISOL® CHARACTERISTICS

	Full glazing	Partial glazing
Panel width	500 mm +/- 2.5 mm*	500 mm +/- 2.5 mm*
Standard length	<= 6 m - 0 + 20 mm	<= 6 m - 0 + 20 mm
Total thickness	40 mm +/- 0.8 mm	40 mm +/- 0.8 mm
Weight	6.8 kg/m ² +/- 5%	5.4 kg/m ² +/- 5%
Resistance to hail	20 mm diam. speed > or = 21 m/sec	20 mm diam. speed > or = 21 m/sec
Ug value	0.54 W/m ² K	0.72 W/m ² K
Expansion coefficient	7 x 10 ⁻⁵ 1/°C	7 x 10 ⁻⁵ 1/°C
Maximum tilt	15° from vertical	15° from vertical

* Also available in 600 mm wide panels.



A UNIQUE PARTNERSHIP WITH CABOT CORPORATION: A MARK OF TRUST



LUMIRA™ aerogel by SKYDÔME® is based on the LUMIRA™ aerogel technology belonging to the CABOT CORP. group, a global company producing special chemical products. Aerogel was developed by CABOT CORP. based on a patented technology involving microparticles and surface modification. It is exclusively manufactured by CABOT CORP. in its specialised factory in Frankfurt, Germany.

Today, SKYDÔME® is the first French group of international standing to benefit from a unique partnership with CABOT CORP. for the production of equipment benefiting from the undeniable advantages of aerogel. Through this partnership, CABOT CORP. clearly demonstrates its willingness to join forces with a leading group focusing on more responsible, more sustainable building for the future.

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 **SKYDÔME®**

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