

# Application Profile

 **nanogel**<sup>TM</sup> TRANSLUCENT AEROGEL



## Project:

**Media center, Briis-sous-Forges, France**

## Product and Sizes:

Profilit<sup>TM</sup> glass K 25/60 + 16 mm  
Lexan<sup>®</sup> Thermoclear<sup>®</sup> polycarbonate sheets filled with Nanogel<sup>®</sup> aerogel

## Technical details:

U-value: 1.8 (W/m<sup>2</sup>.K)  
Light transmission: 47%  
Sound transmission: 44 dB

## Owner:

City of Briis-sous-Forges  
Place de la Libération  
F - 91640 Briis-sous-Forges

## Architect:

Archicop Groupe Vitorio Caldoncelli-Vidal  
156, Rue Diderot  
F - 94000 Vincennes  
Tel: +33 1 53 66 97 60  
E-mail: [Contact@archicop.com](mailto:Contact@archicop.com)

## Consultant:

POUGET *Consultants*  
81, Rue Marcadet  
F - 75018 Paris  
Tel: +33 1 42 59 53 64  
E-mail: [Contact@pouget-consultants.fr](mailto:Contact@pouget-consultants.fr)

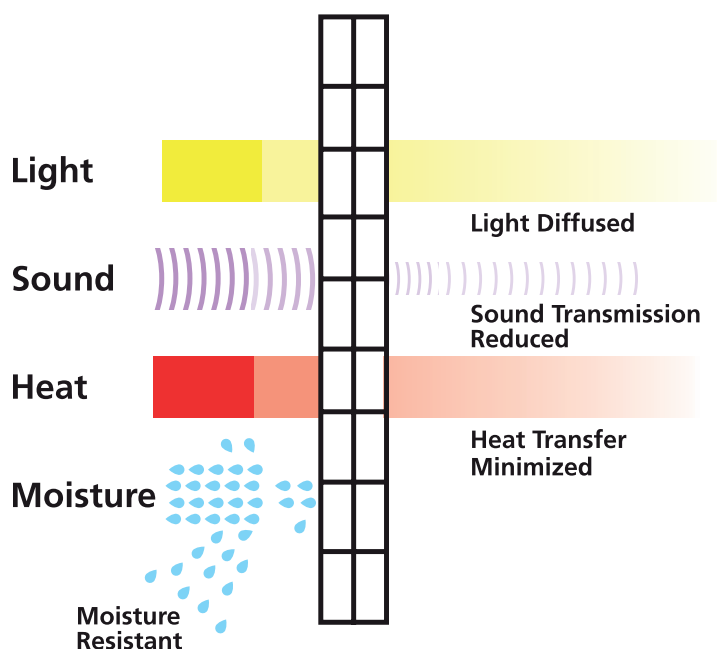
## Glazier:

Saprover  
42-44, Rue Jules Lagaisse  
F - 94400 Vitry-sur-Seine  
Tel: +33 1 46 70 66 00  
E-mail: [Saprover@club-internet.fr](mailto:Saprover@club-internet.fr)

## Reasons for selection:

This media center in the heart of this picturesque village of Briis-sous-Forges required modernization, while keeping the authentic style of the building. Profilit glass filled with Nanogel aerogel has been selected for the combination of light diffusion and thermal insulation to create a comfortable and open atmosphere. It is important to note that the product Profilit glass with Nanogel aerogel makes it possible to obtain a very powerful level of insulation compared to the French lawful requirements.

# The Only Eco-Insulation for High-Performance Daylighting



## Characteristics of Nanogel

Particle size range	0.5 to 3.4 mm
Bulk density	60-80 kg/m <sup>3</sup>
Surface chemistry	Fully hydrophobic
Light transmission	up to 40% in 25 mm panel
Thermal conductivity	0.018 (W/m.K)
Insulation U value	0.89 in 25 mm panel
Sound speed	100 m/sec vs 340 m/sec in air
UV stable	no discoloration
Growth of mildew/fungus	no
Combustible	no
Smoke generation	no

## Benefits of Nanogel

- Light transmission and insulation combined
- Better diffusion of light
- No color change in accelerated weathering tests
- Thermal Insulation:
  - Doubles insulation
  - No downdrafts
  - Better comfort at lower cost/HVAC
- Displaced dewpoint: no condensation
- Acoustical insulation: 50% reduction @ 100 Hz
- Very low weight: 60-80 gram/litre

## Features & benefits to architects/building owners:

### Light

Diffusion	Larger panels	→ Architectural freedom
	No shadows	→ No investment
	No sunshades	→ No maintenance

### Insulation

Thermal	No heat loss	→ Cost reduction
	No downdraft	→ Better comfort
Acoustic	Sound dampening	→ Better comfort
	Reduction hail/rain	→ Increased productivity

### Sound

Aesthetics	Greater architectural freedom
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## Warranty:

10 years on loss of light transmission, loss of thermal conductivity and UV resistance.

### North America

Cabot Corporation  
157 Concord Road  
Billerica, MA 01821  
U.S.A.  
T: +1 978 670-8050  
F: +1 978 670-7045

### Europe

Cabot  
Interleuvenlaan 15 i  
B-3001 Leuven  
BELGIUM  
T: +32 16 39 25 78  
F: +32 16 39 25 79

### Asia Pacific

Cabot Specialty Chemicals Inc.  
Level 21, MNI Tower 2  
11, Jalan Pinang  
50450 Kuala Lumpur,  
MALAYSIA  
T: +60 3 2164-8352  
F: +60 3 2162-0253

### South America

Cabot Latin America Division  
Rua do Paraíso, 148 - 5th floor  
Paraíso CEP 04103-100  
Sao Paulo SP  
BRAZIL  
T: +55 11 2144 6400  
F: +55 11 3253 0051

### China

Cabot (China) Limited  
558 Shuangbai Lu  
Wujing, Shanghai 201108  
CHINA  
T: +86 21 6434 7766  
F: +86 21 6434 5532



[www.nanogel.com](http://www.nanogel.com)

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