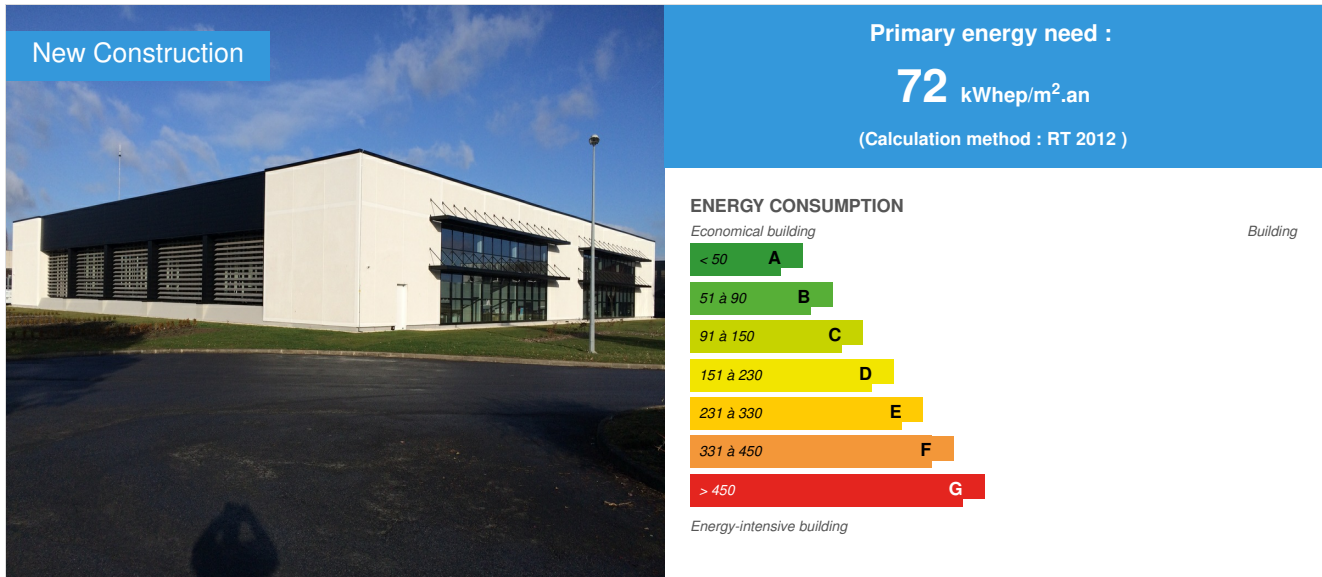


## Projet Première T12

by [willy loire](#) / 2017-06-09 15:23:48 / France / 8818 / FR



**Building Type :** Factories

**Construction Year :** 2016

**Delivery year :** 2016

**Address 1 - street :** 7 rue Ferdinand de Lesseps, ZAC de Mercières 60205 COMPIÈGNE, France

**Climate zone :** [Cfc] Marine Cool Winter & summer- Mild with no dry season.

**Net Floor Area :** 3 300 m<sup>2</sup>

**Construction/refurbishment cost :** 5 000 000 €

**Number of Installed Kw :** 1 576 Installed Kw

**Cost/m<sup>2</sup> :** 1515.15 €/m<sup>2</sup>

### Certifications :



### General information

Construction of a building with a surface area of 3300m<sup>2</sup>, workshop T12, located on a plot located on the production site of Compiègne already owned by the Owner CHANEL Parfums Beauté. The operation is part of the "Première" global project, a flagship industrial project at the Compiègne site to cope with the growth of the perfume and beauty products production business while presenting a strong human dimension.

The new T12 workshop, the 12th extension of the site since its construction in 1980, allows the production capacities of the Perfumes division to be increased. It will be used for the packaging of alcoholic perfumery products.

This extension is the first French industrial building to have obtained the HQE Exceptionnel certification.

### Sustainable development approach of the project owner

Existence of a comprehensive voluntary CSR policy since 2003, in which the operation takes place. The HQE certification of the operation derives from the roadmap of the "Première" global project as a participatory project for the global transformation of the industrial site with all stakeholders. The audit confirmed a very effective teamwork around the project management, with a mastery of the project, delays and remarkable performances. Establishment of an internal communication tool under the responsibility of a communication committee, including awareness of HQE and the environment, extended to companions and service providers. The waste from the construction site reached 96% recovery, with on-site sorting (6 different buckets). The monitoring of the site's consumption (water and electricity) has been updated and posted on a weekly basis to raise staff awareness. The maintenance log was carried out on a common framework with the assistance of the MOA's operating specialist to homogenize the documents of the companies and facilitate its use in operational phase. A working group was set up to ensure the transfer of the building to the operator. The companies have drawn up a list of "made in France" products lot by lot, including the identification of processing sites in France for the extended GO.

## Architectural description

The building has a compact architecture. The building is protected from the prevailing cold winds, with winds between the ESE and ONO exhibitions.

## Stakeholders

### Stakeholders

Function : Contractor

Chanel

Willy Loire - 03 44 30 15 00

<http://www.chanel.com>

Project Manager

Function : Designer

BG Concept

o.briere@bgconcept.fr

<http://www.bgconcept.fr/>

Function : Construction Manager

SIRETEC Ingénierie

Laurent Frasier

<http://www.siretec.fr/>

Function : Assistance to the Contracting Authority

TERAO

<http://www.terao.fr/>

Function : Certification company

Certivea

certivea@certivea.fr

<http://www.certivea.fr/>

### Contracting method

Separate batches

### Type of market

Global performance contract

## Energy

### Energy consumption

Primary energy need : 72,00 kWh/m<sup>2</sup>.an

Primary energy need for standard building : 140,00 kWh/m<sup>2</sup>.an

Calculation method : RT 2012

Breakdown for energy consumption : Heating -> 22.80 kWh<sub>ep</sub> / m<sup>2</sup>

Cooling ---> 17.40 kWh<sub>ep</sub> / m<sup>2</sup>

DHW -> 1.20 kWh<sub>ep</sub> / m<sup>2</sup>

Lighting -> 12.00 kWh<sub>ep</sub> / m<sup>2</sup>

Auxiliaries -> 18.70 kWh<sub>ep</sub> / m<sup>2</sup>

## Real final energy consumption

Real final energy consumption/m<sup>2</sup> : 49,50 kWh<sub>ep</sub>/m<sup>2</sup>.an

## Envelope performance

More information :

Bbio: 47.90 points Exterior wall (Premur type "Pre-insulated TH" insulated with 150 mm of rock wool,  $U_p = 0.248 \text{ W / m}^2\cdot\text{K}$ ) (Metallic cladding double skin insulated with 130mm rock wool,  $U_p = 0.355 \text{ W / m}^2\cdot\text{K}$ ) Steel roofing (Waterproofing on insulated steel tank with 240mm of rock wool NB: use of thermal bridge breaks,  $U_p = 0.149 \text{ W / m}^2\cdot\text{K}$ ) Cap cap (400mm of glass wool unrolled on metal underface,  $U_p = 0.098 \text{ W / m}^2\cdot\text{K}$ )

Building Compactness Coefficient : 0,35

Indicator : I4

Air Tightness Value : 1,70

## More information

The total energy gain between the base model and the project model is 232.4 kWh<sub>EP</sub> / (m<sup>2</sup>.an), ie 17.59%

## Renewables & systems

### Systems

Heating system :

- Electric radiator
- Radiant ceiling
- Tape

Hot water system :

- Other hot water system

Cooling system :

- Others
- Others

Ventilation system :

- Nocturnal Over ventilation
- Double flow heat exchanger

Renewable systems :

- Other, specify

## Environment

### Urban environment

Land plot area : 3 355,00 m<sup>2</sup>

Built-up area : 98,00 %

Green space : 4 200 000,00

The industrial site is bordered by the streets Ferdinand de Lesseps, Joseph Cugnot and Avenue Marcelin Berthelot. The site is located in the ZAC de Mercières, composed in this sector of industrial and craft activities. The main roads serving the site are the departmental road D200 in the east and the interchange E46 in the north. The A1 motorway is approximately 9 km from the hotel. Several bus lines pass close to the site. In addition, the site is located in the immediate vicinity of the Oise and about one kilometer from the Forêt Domaniale de Compiègne. It is an activity area where green spaces are created and maintained by the City Department.

### Product

Aéromax

Thermor

09 70 81 81 70

<http://www.thermor.fr/>

**Product category :** Table 'c21\_china.innov\_category' doesn't exist SELECT one.innov\_category AS current,two.innov\_category AS parentFROM innov\_category AS oneINNER JOIN innov\_category AS two ON one.parent\_id = two.idWHERE one.state=1AND one.id = '18'

The Aéromax thermodynamic water heater is equipped with ACI Hybrid technology: dynamic anti-corrosion protection. The purpose of this protection is to maintain a protective barrier and to protect the tank against water aggressions, in particular scale and corrosion.

In addition to the ACI hybrid, it is equipped with a resistance protected by a sheath which also allows to limit the deposits in the bottom of the tank to ensure the durability of your thermodynamic water heater.

A thermodynamic water heater is an environmentally friendly water heater with an integrated heat pump. He will draw the calories naturally present in the air, a source of free and inexhaustible energy, to transmit the heat to the water of the hot water balloon. It runs all year round regardless of the seasons and allows you to divide by 4 its hot water bill.

The Thermodynamic balloon Aeromax is very easy to use. Choose the mode that suits your needs:

**AUTO mode:** the water heater analyzes the consumption on the previous days to adapt the hot water production according to your needs. He reacts to unforeseen events to ensure hot water by raising calls during the day.

**MANUAL mode:** the water heater favors operation even more with the heat pump.

In case of absence you will be able to program your thermodynamic balloon the number of days of which you are absent to avoid to heat the water unnecessarily.

New: by downloading the Cozytouch application you can remotely control your Thermodynamic water heater and visualize your energy consumption.  
(Subject to being equipped with a Cozytouch bridge)



## Costs

### Construction and exploitation costs

Reference global cost : 5 000 000,00 €

Renewable energy systems cost : 398 125,00 €

Reference global cost/Installed Kw : 5000000

Total cost of the building : 6 400 000 €

## Health and comfort

### Water management

Consumption from water network : 234,00 m<sup>3</sup>

Consumption of harvested rainwater : 0,33 m<sup>3</sup>

Water Consumption/m<sup>2</sup> : 0.07

Water Consumption/Installed Kw : 0.15

The site pumps its drinking water from the city of Compiègne where 3 recovery basins and wastewater treatments have been built.

In addition, storm water is gravity flowed to storm overflows and discharged into the river after crossing the thresholds.

### Indoor Air quality

The Atmo-Picardie site records air quality using the ATMO index, determined from the concentrations of four pollutants: sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>) And suspended particles less than 10 micrometers (PM<sub>10</sub>). There is no measurement station in Compiègne; The closest one is located in Rieux at 30km of the studied site. Measurements of atmospheric pollutants show that the majority of the results comply with the quality objectives set out in the decree of 21 October 2010 relating to air quality.

## Comfort

**Health & comfort :** The building has been designed to provide: - good hygrothermal comfort throughout the year, - a good distribution between natural lighting and high-performance luminaires - a certain quality in the sanitary spaces - limitation of electromagnetic fields - a control of the temperature of the water and a protection of the pipes

**Acoustic comfort :** The site is not affected by noise from road traffic; It is near the zone impacted by the level 55dB (nuisances limited). The plot is also not impacted by the acoustic nuisance of the Creil-Jeumont railway (classified in category 1, maximum width of the areas affected by noise = 300m), located 400m from the site. In addition, false ceilings and acoustic screens were installed in the premises.

## Carbon

### GHG emissions

**GHG in use :** 6,57 KgCO<sub>2</sub>/m<sup>2</sup>/an

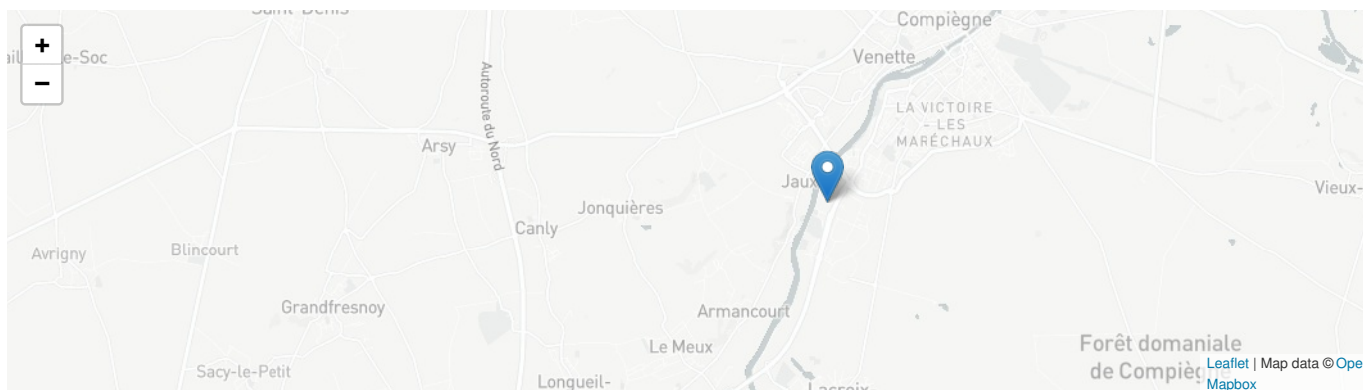
**Methodology used :**

GES heating = 5.29, GES cooling = 0.27, GES ECS = 0.02, GES lighting 0.39, GES auxiliary = 0.61

### Life Cycle Analysis

**Eco-design material :** The wood used comes from local forests with an eco-label (eg PEFC) or sustainable management.

## Contest



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