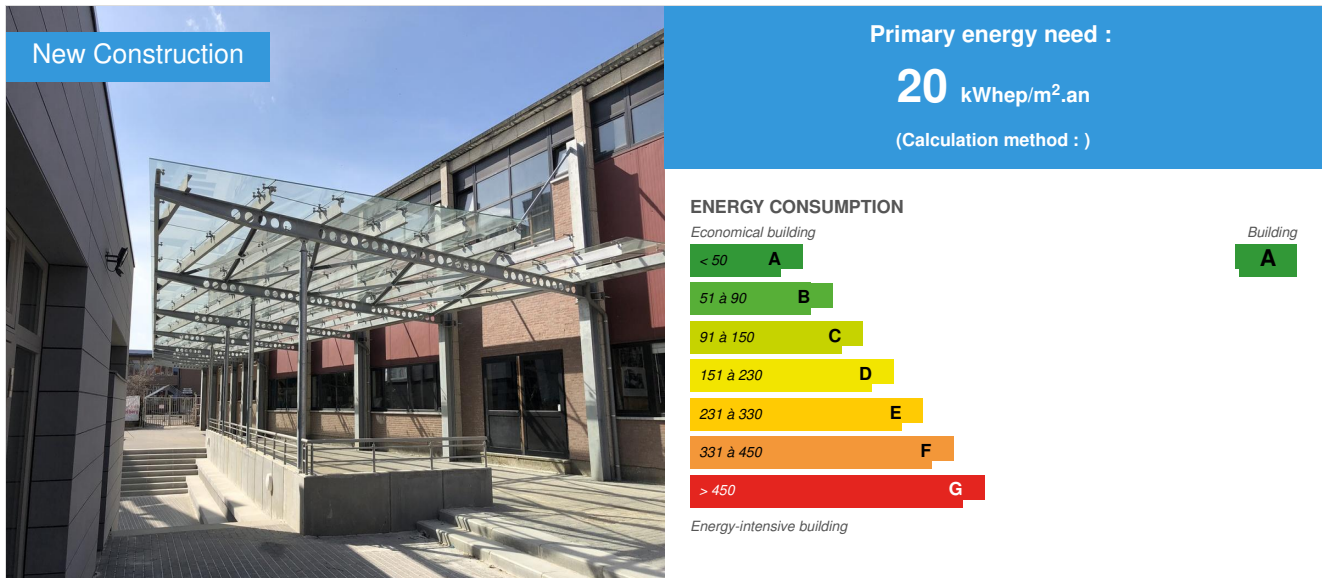


Extension of the DON BOSCO Institute to Wolluwe Saint Pierre

by [Geoffrey Vermeulen](#) / 2019-06-24 15:38:27 / Belgique / 5912 / 



Building Type : School, college, university
Construction Year : 2017
Delivery year : 2018
Address 1 - street : avenue du val d'or, 90 1150 WOLLUWE SAINT PIERRE, Belgique
Climate zone : [Cwb] Mild, dry winter, cool and wet summer.

Net Floor Area : 3 821 m²
Construction/refurbishment cost : 6 703 720 €
Number of Pupil : 684 Pupil
Cost/m2 : 1754.44 €/m²

Certifications :



General information

Extension of the Don Bosco Institute - Construction of a new school building comprising 29 classes and 1 Alu-Pvc workshop and their additional premises. Passive building with high energy performance certified passive (zero energy).

Data reliability

Self-declared

Stakeholders

Contractor

Name : A.S.B.L Institut DON BOSCO

Contact : Mr Marcel CROON

<https://www.idbbxl.com/>

Construction Manager

Name : Entreprises Koeckelberg

Contact : info@koeckelberg.be

<http://www.koeckelberg.be>

Contracting method

General Contractor

Owner approach of sustainability

This school, offering varied options in the industrial technical field and in the graphic arts, needed much more space to ensure a comfort worthy of the name to its students.

Since last September, this positive energy building has welcomed electricians, computer scientists and electronics engineers.

This concept, entirely prefabricated and with apparent structural elements, constitutes a real commitment for future generations with its green roofs and its rainwater recovery system.

Architectural description

See Development steps.

Energy

Energy consumption

Primary energy need : 20,00 kWhep/m².an

Primary energy need for standard building : 50,00 kWhep/m².an

Calculation method :

Renewables & systems

Systems

Heating system :

- Condensing gas boiler

Hot water system :

- No domestic hot water system

Cooling system :

- No cooling system

Ventilation system :

- Nocturnal Over ventilation
- Free-cooling
- Double flow heat exchanger

Renewable systems :

- Solar photovoltaic

Urban environment

Building located in the city, close to public transport. Maintain existing trees for building integration and minimize visual impact for neighbors.

Products

Product

insulating wood box

Jonckheere projects

<https://www.jonckheereprojects.be/>

Product category : Gros œuvre / Système passif

Prefabricated structure in insulated wood box

Fast system integrating thermal insulation and airtightness. Lets you really "pack" the building and avoid thermal bridges and weak spots for airtightness.



Costs

Contest

Reasons for participating in the competition(s)

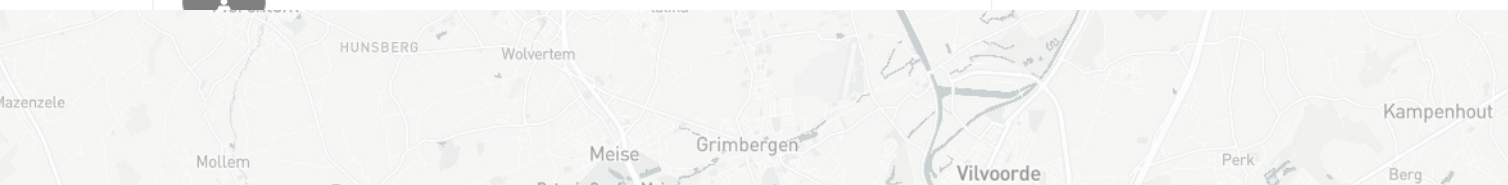
PASSIVE BUILDING

- the heating requirement is maximum 15 kWh / (m².year)
- the cooling requirement is maximum 15 kWh / (m².year)
- the overheating frequency of the building above 25 ° C is maximum 5% of the occupancy time of the building (comfort criterion verified by dynamic thermal simulation)
- The air tightness of the building ensures a leak rate through the envelope of maximum 0.6 air changes per hour at 50 Pa (criterion verified according to report)
- the primary energy consumption is less than or equal to 90 - 2.5 x compactness (expressed in primary kWh / (m².year)

Building candidate in the category



Energie & Climats Tempérés





Prix du public

