Modular School Strassen

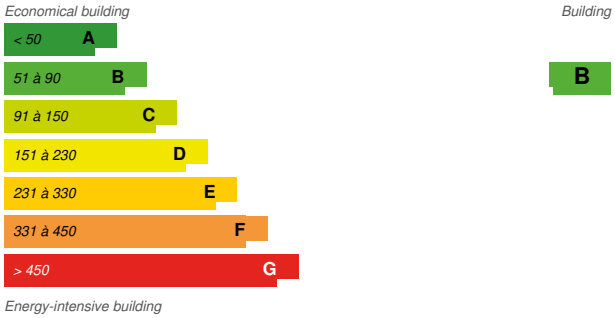
by Diana Cipleu / 2021-03-08 14:07:41 / Luxembourg / 4746 / FR

Primary energy need :

64.6 kWhep/m².an

(Calculation method : RGD du 31 août 2010 - bâtiment fonctionnel)

ENERGY CONSUMPTION



Building Type : School, college, university
Construction Year : 2020
Delivery year : 2021
Address 1 - street : rue du Cimitière 8018 STRASSEN, Luxembourg
Climate zone : [Cwb] Mild, dry winter, cool and wet summer.

Net Floor Area : 2 435 m²
Construction/refurbishment cost : 5 719 512 €
Cost/m2 : 2348.88 €/m²

Certifications :

DGNB

General information

The municipality of Strassen has appointed the "Energy and circular economy" Department of Simon-
Christiansen & Associés to prepare a call for tenders for the construction of a new school in modular construction with DGNB certification. Planning, tendering and evaluation
was carried out in cooperation with the Office of Tecna s.à.rl Simon-Christiansen & Associés was responsible for thermal insulation, energy energy efficiency of building services,
durability, user comfort (acoustic insulation, interior acoustic, thermal, visual,
...) and the terms of the contract.

Data reliability

Self-declared

Stakeholders

Contractor

Name : Administration Communale de Strassen
Contact : Claude Feipel
https://www.strassen.lu/

Construction Manager

Name : Tecna
Contact : Mauro Parruccini - mauro.parruccini@tecna.lu
http://tecna.lu/

Stakeholders

Function : Assistance to the Contracting Authority

Simon-Christiansen & Associés

Samuel Majerus - samuel.majerus@simon-christiansen.lu

https://www.simon-christiansen.lu/

Function : Construction company

Alho

Adama Pakoumé Yéré - adama.yere@alho.com

Energy

Energy consumption

Primary energy need : 64,60 kWhep/m^2.an

Primary energy need for standard building : 115,90 kWhep/m^2.an

Calculation method : RGD du 31 août 2010 - bâtiment fonctionnel

Final Energy : 30,70 kWhef/m^2.an

Breakdown for energy consumption :
Final energy (kWh / m2a): - Heating 14.4- DHW 1.7- Lighting 3.5- Ventil. mecha. 7.5- Cold 2.8- Aux energy. 0.8

More information :
Actual consumption data is not yet available.

Envelope performance

Envelope U-Value : 0,24 $W.m^{-2}.K^{-1}$

More information :
- Facade: steel construction with mineral fiber insulation U = 0.176 w / m2K - Roof: steel construction with mineral fiber insulation U = 0.141 W / m2K - Slab against earth: steel construction with fiber insulation inside and PUR outside (against the ground) U = 0.174 W / m2K

Building Compactness Coefficient : 0,41

Indicator : EN 13829 - q50 » (en m3/h.m3)

Air Tightness Value : 0,68

Renewables & systems

Systems

Heating system :

- Urban network
- Radiant ceiling

Hot water system :

- Individual electric boiler

Cooling system :

- Others
- Radiant ceiling

Ventilation system :

- Double flow heat exchanger

Costs

Contest

Reasons for participating in the competition(s)

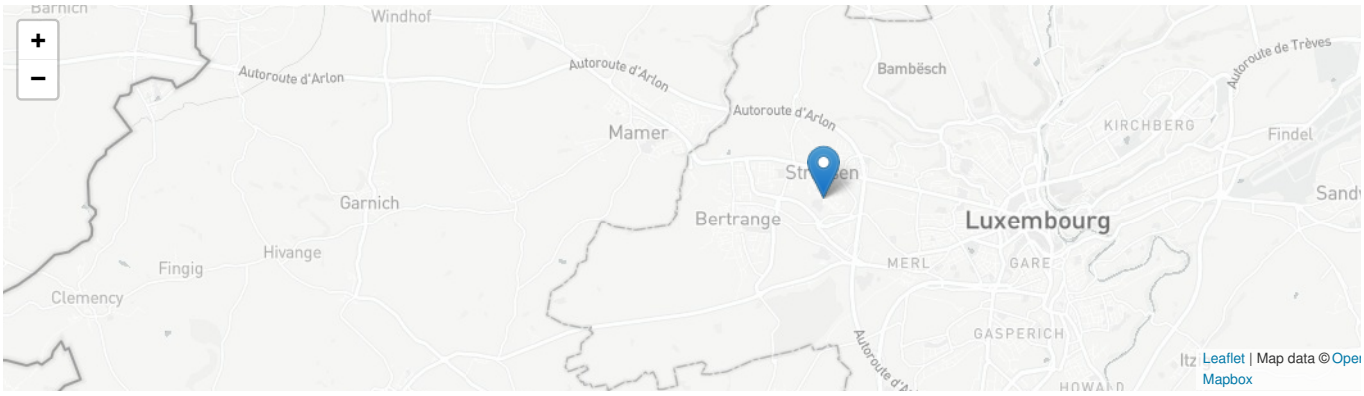
- construction rapide

- bâtiment certifié DGNB

- bâtiment flexible

Building candidate in the category

Energie & Climats Tempérés



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