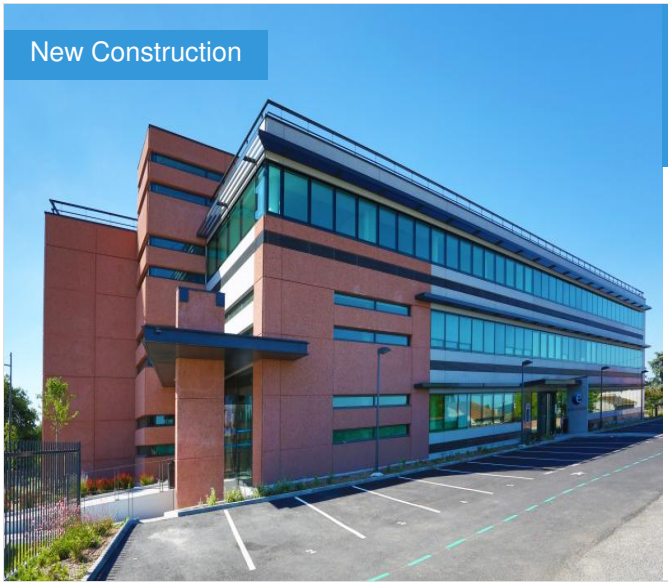
Les Amarantes

by Jonathan Kuhry / 2014-10-17 16:00:56 / France / 5282 / FR



Primary energy need :

97.2 kWhep/m².an

(Calculation method : RT 2012)

ENERGY CONSUMPTION

Economical building — *Building*

< 50	A	
51 à 90	B	B
91 à 150	C	
151 à 230	D	
231 à 330	E	
331 à 450	F	
> 450	G	

Energy-intensive building

Building Type : Office building < 28m
Construction Year : 2014
Delivery year : 2014
Address 1 - street : Rue Françoise d'Eaubonne 31000 TOULOUSE, France
Climate zone : [Csa] Interior Mediterranean - Mild with dry, hot summer.

Net Floor Area : 3 116 m² SHON RT
Construction/refurbishment cost : 6 000 000 €
Cost/m2 : 1925.55 €/m²

Certifications :

Proposed by :

General information

IN the center of the Borderouge neigborhood, located in the north of Toulouse, Les amarantes offer 9.200m² of offices in three buildings: the Carmin, the Vermeil and the Sienne. These three entirely modular and partitionable buildings leave all latitude when it comes to setting up work spaces. They feature high quality prestations for an optimal comfort of usage.

PLanned surface: 9.200m² First delivery on march 2014 (2.895m²)

Sustainable development approach of the project owner

The operation Les Amarantes aims for the NF-Tertiary Building certification-HQE approach. The first delivered building is certified and obtained the Sustainable Building Passport "Very Good".
Performances are based on the Gapéo® technology, an intelligent energy management system developed by the GA group. This ensures a global solution to

energy management while allowing individualized control of each office equipment. The building has a contractual commitment on energy consumption under 35 kWh/m²/ year for heating, cooling and ventilation.

Architectural description

Fully adjustable and partitionable, the three buildings leave discretion in setting of workspaces. They feature high-end services for maximum user comfort.

See more details about this project

http://www.ga-sa.fr/adminga/assets/docs/Les_Amarantes.pdf

Stakeholders

Stakeholders

Function : Contractor

GA Promotion

8, chemin de la Terrasse BP 95809 31505 TOULOUSE Cedex 5

http://www.ga-sa.fr/

Function : Construction company

GA Entreprise

8, chemin de la Terrasse BP 95809 31505 TOULOUSE Cedex 5

http://www.ga-sa.fr/

Function : Designer

Gabriel et Michèle DE HOYM DE MARIEN SARL et CDA Architectes

Function : Certification company

CERTIVEA

certivea@certivea.fr - 01 40 50 29 09

http://www.certivea.fr/

Type of market

Realization

Energy

Energy consumption

Primary energy need : 97,20 kWhep/m^2.an

Primary energy need for standard building : 140,00 kWhep/m^2.an

Calculation method : RT 2012

Breakdown for energy consumption : RT2012 consumptions kWhep /m²/ year
- Heating: 25.9
- Cooling: 14.6
- Hot water system: 6.2
- Lighting: 24.7
- Auxiliary: 0.6
- Ventilation: 8.6

Envelope performance

Envelope U-Value : 0,64 $W.m^{-2}.K^{-1}$

Renewables & systems

Systems

Heating system :
- Heat pump
- Fan coil

Hot water system :
- Other hot water system

Cooling system :
- Reversible heat pump
- Fan coil

Ventilation system :
- Double flow heat exchanger

Renewable systems :
- No renewable energy systems

Smart Building

BMS :
GAPEO

Environment

Urban environment

Land plot area : 9 888,00 m^2

Green space : 4 035,00

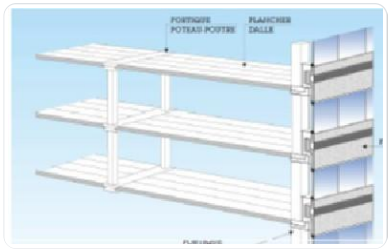
Les Amarantes are located in Toulouse, facing the second main square of Toulouse after the Capitol, in the heart of a neighborhood undergoing a revival. An ideal location, close to all major access roads serving the Metropole:
- Metro: Borderouge Station (Line B)
- Bus: Served by 8 lines
- Velo 2 stations
- Train: Toulouse Matabiau railstation is only 10 minutes away by metro or car
- Ring road: At the exit of the exchanger Urban Boulevard North
- Airport: 15 minutes from Toulouse-Blagnac airport

Products

Product

LEIGA STRUCTURE

GA



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Product category : Gros œuvre / Structure, maçonnerie, façade

Patented system poles / beams: Slabs prestressed beams + + Posts

The concrete structure of the building is prefabricated in the factory.Construction advantages: - respect for delays and mastery of quality, - reduction of nuisance and pollution (few buckets of wash water has concrete, inert waste reduction ...) ...Strengths for offices layouts: the framework allows for very large litters, giving vast plateaus and can be freely feeders and change function cheaply throughout the service life of the building.

Technical Facilities embedded in walls

GA

GA

http://www.ga-sa.fr/

Product category : Gros œuvre / Structure, maçonnerie, façade

Monobloc air treatment devices are integrated into the facade offering optimal modularity premises. The concrete facade is prefabricated in the factory and presents the specific reservations for the integration of devices.

The units provide heating, cooling and hygienic ventilation functions via technical solutions assembled in the factory in one and the same container. In addition to the native performance of the equipment, such a system is effective particularly in terms of reduction of distribution losses, since it requires no hydraulic or aeraulic network.

The devices are managed by a centralized technical management system developed by the GA group: Gapéo®. GTC makes it possible to harmonize the management and to the monitor energy consumption.

Furthermore, the individuality of the devices guarantees a high level of customer comfort for users, who can control their local thermal environment in space.

Costs

Construction and exploitation costs

Total cost of the building : 6 000 000 €

Health and comfort

Water management

Consumption from water network : 622,00 m^3

Water Consumption/m2 : 0.2

Water Consumption/Work station : 2.79

The annual water consumption from the water system is only about the drinking water consumed in bathrooms. It is theoritically calculated onscenarios frequency for bathrooms and on the characteristics of installed equipment. These were selected for their sobriety in water consumption.

Indoor Air quality

The choice of products and building materials was made to select the more environmentally friendly ones, particularly in terms of emission of VOCs. The A Class , according to regulatory, labeling, has been requested for products and materials in contact with the inside air.

Carbon

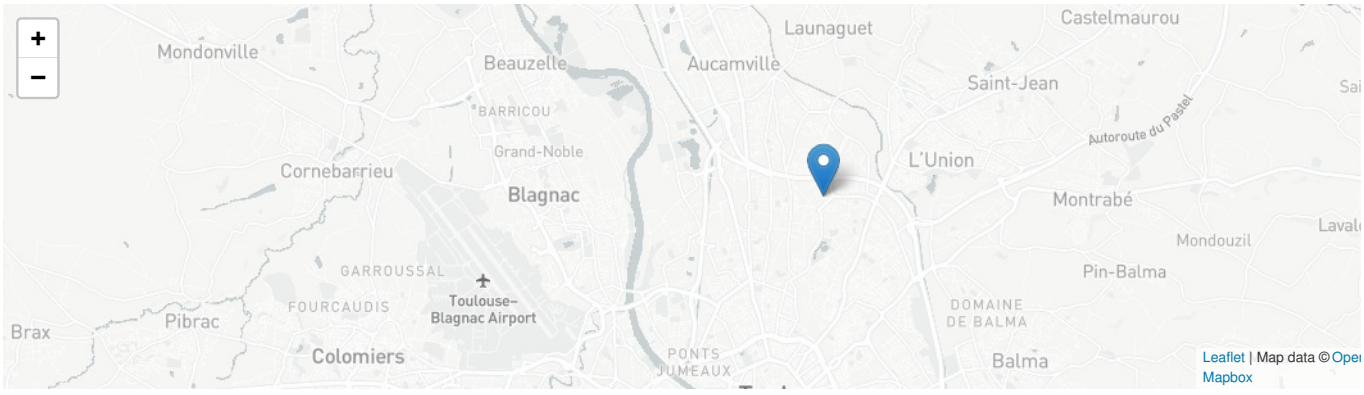
GHG emissions

GHG in use : 3,09 $KgCO_2/m^2$/an

Methodology used :

This results shows the pollution caused by the energy consumption of the building, calculated according to RT2012

Building lifetime : 50,00 année(s)



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