


# Sant Francesc 18

by Marcos Arraez / 2017-04-24 10:43:39 / Espagne / 7673 / ES



Renovation

Primary energy need :

## 37.3 kWhpe/m<sup>2</sup>.year

(Calculation method : )

**ENERGY CONSUMPTION**

Consumption Range (kWhpe/m <sup>2</sup> .year)	Grade
< 50	A
51 à 90	B
91 à 150	C
151 à 230	D
231 à 330	E
331 à 450	F
> 450	G

Building **A**

**Building Type** : Collective housing > 50m  
**Construction Year** : 2016  
**Delivery year** : 2017  
**Address 1 - street** : 17002 GIRONA, España  
**Climate zone** : [Csa] Interior Mediterranean - Mild with dry, hot summer.

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**Net Floor Area** : 223 m<sup>2</sup> SHON  
**Construction/refurbishment cost** : 240 840 €  
**Number of Dwelling** : 3 Dwelling  
**Cost/m<sup>2</sup>** : 1080 €/m<sup>2</sup>

Proposed by :



## General information

Renovated urban building with A energy certification, made according to the sustainable construction Eco8 model and created from the collaboration with the future owners, with the purpose of creating a building intended for eco-apartments adapted for a large part of handicaps. A project with added value, sustainable, efficient, designed to improve the environment and the happiness of its users.

[See more details about this project](#)

<http://www.eco8nstruccio.cat/index.php/projectes-eco8/item/16-projecte-2>

Data reliability

Self-declared

## Stakeholders

### Stakeholders

Function : Contractor

INCOVI

<http://incovi.com/>

Function : Certification company

Associació Catalana de Construcció Sostenible

<http://www.eco8nstruccio.cat/>

Certification under the sustainable construction Eco8 model

### Contracting method

Other methods

### Owner approach of sustainability

The aim is to provide sustainable accommodation that promotes the health and well-being of users and that is environmentally friendly, not only during the construction process of the work, but throughout the life of the building

### Architectural description

The architecture has been based on an eminently energetic rehabilitation but also deals with general aspects of sustainability: water management, responsible materials, innovation, good practices in construction, local promotion, respect for the environment and human health. The main thrust of this promotion has been the adaptability of housing and the participation of final users in the design and construction process of housing. The result: adapted, healthy and sustainable accommodation.

## Energy

### Energy consumption

Primary energy need : 37,30 kWhpe/m<sup>2</sup>.year

Primary energy need for standard building : 60,00 kWhpe/m<sup>2</sup>.year

Calculation method :

CEEB : 0.0001

More information :

During the first year the consumption is verified through monitoring of the building in order to verify actual consumption.

Initial consumption : 80,00 kWhpe/m<sup>2</sup>.year

### Envelope performance

Envelope U-Value : 0,28 W.m<sup>-2</sup>.K<sup>-1</sup>

More information :

The building is formed by different types of enclosure, adapting to the existing initial composition: 0.28

Indicator : HE1 BD

## Renewables & systems

### Systems

Heating system :

- Condensing gas boiler

Hot water system :

- Condensing gas boiler

#### Cooling system :

- No cooling system

#### Ventilation system :

- Natural ventilation
- Single flow

#### Renewable systems :

- Solar Thermal

Renewable energy production : 30,00 %

#### Other information on HVAC :

The building does not have an air conditioning system, the natural ventilation system is enough to lower the temperature during the night in the warm season.

#### Solutions enhancing nature free gains :

The building has a cross-ventilation system that facilitates the natural thermal regulation, in addition to a thermal inertia thanks to the stone walls that act as natural regulators.

## Environment

### GHG emissions

GHG in use : 2,60 KgCO<sub>2</sub>/m<sup>2</sup>/year

#### Methodology used :

Spanish Royal Decree: 47/2007

### Indoor Air quality

It is guaranteed by controlled forced ventilation.

### Comfort

**Health & comfort :** A photocatalytic painting is used for the interior painting of the whole building, an air purification system through a process called PHOTOCATALYSIS. It eliminates odors, fumes, viruses, bacteria, microorganisms, spores and other organic elements dangerous to health, and resolves the so-called "sick building syndrome".

#### Calculated indoor CO<sub>2</sub> concentration :

La qualitat del aire interior se controla a traves de una sonda que mide la concentració de CO<sub>2</sub> en el aire

#### Measured indoor CO<sub>2</sub> concentration :

700PPM

## Products

### Product

PARQUET HELVETMAR

HELVETMAR

HELVETMAR

<http://www.marti1956.com>

#### Product category :

Parquet made of FSC certified, low carbon CO<sub>2</sub> wood.

On-site confirmation of sustainable production certificates.



URSA INSULATION

URSA

URSA

<http://www.ursa.es/es-es/productos/ursa-terra/ursa-terra-base/Paginas/informacion.aspx>

Product category :

Mineral wool with Environmental Product Declaration.

Revision of thickness and coefficient of thermal insulation and correct placement on site, solving thermal bridges



## Costs

### Construction and exploitation costs

Total cost of the building : 240 840 €

## Urban environment

### Urban environment

The building is located on Avenida St. Francesc 18, Girona. It is a central area, close to Barri Vell, an area of great tourist interest. Thanks to this privileged location, the building has a multitude of nearby services (public transport less than 300 m from the city hall, shopping malls, gym, bank, school, Universitat de Girona, headquarters of the Generalitat de Catalunya de Girona, etc., all of them less than 800 meters from the building). In addition, users are very close to different public spaces, such as Plaça de la Constitució or Plaça del Lleó.

### Land plot area

Land plot area : 76,00 m<sup>2</sup>

### Built-up area

Built-up area : 100,00 %

### Parking spaces

The building has no parking for cars. There are public car parks very close (less than 100 m) for this purpose. To promote sustainable transport, the building has reserved a space to store users' bicycles and visits at the basement floor.

## Building Environmental Quality

### Building Environmental Quality

- Building flexibility
- indoor air quality and health
- works (including waste management)
- consultation - cooperation
- acoustics
- comfort (visual, olfactive, thermal)
- energy efficiency
- renewable energies
- integration in the land
- mobility
- building process
- products and materials

## Contest

### Building candidate in the category



Energía & Climas Temperados



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