


## Passivhaus Marlegno

by Angelo Marchetti / 2015-12-21 16:30:39 / Italia / 9555 / IT

**New Construction**



**Primary energy need :**

98 kWhpe/m<sup>2</sup>.anno

(Calculation method : Primary energy needs )

**ENERGY CONSUMPTION**

*Economical building* *Building*

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

*Energy-intensive building*

**Building Type** : Terraced Individual housing  
**Construction Year** : 2015  
**Delivery year** : 2015  
**Address 1 - street** : Via dei Platani s.n. 24060 BOLGARE (BG), Italia  
**Climate zone** : [Csa] Interior Mediterranean - Mild with dry, hot summer.

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**Net Floor Area** : 97 m<sup>2</sup> Other  
**Construction/refurbishment cost** : 250 000 €  
**Cost/m2** : 2577.32 €/m<sup>2</sup>

**Certifications :**



**Proposed by :**



### General information

Passivhaus Marling is a single two-floor villa located in Bolgare (BG), Lombardia, Italy.

It was made following the standards of the ENERGY EFFICIENCY dictated by the Passivhaus Institut: high thermal insulation, air tightness, reduction of thermal bridges, high-performance windows, solar gains and VMC with heat recovery, in order to minimize energy consumption and reduce the environmental impact.

SUSTAINABILITY is the key word: its backbone fact has been realized with the innovative system constructive Tavego: walls, wooden beams assembled without the use of adhesives. The main goal is to reduce GHG emissions and increase the healthiness of the interior spaces. This is in addition to the many qualities of a noble material such as wood.

In addition, the Passivhaus Marling is a house ALWAYS CONNECTED: the internal network provides optimum plant management and consumption, avoiding waste and saving money.

The careful design of the details, the brightness of the spaces and the high quality design make Passivhaus Marling a sustainable home, healthy and comfortable to live in.

A new way of designing, which give a great importance to the man and the environment.

## See more details about this project

<http://www.marlegno.it/casapassiva>

<http://www.marlegno.it/la-casa-a-impatto-zero>

## Data reliability

3rd part certified

## Stakeholders

### Stakeholders

Function : Construction company

Marlegno s.r.l.

info@marlegno.it

<http://www.marlegno.it/it>

### Contracting method

Build and sell construction

### Owner approach of sustainability

Living in a passive house is beneficial both in terms of energy savings and the economic point of view. The ability to easily manage consumption thanks to your home network avoids energy waste and thus save. Also the use of sustainable materials for the construction of the building is a choice in favor of environmental protection, as well as bringing greater comfort to those who live there.

### Architectural description

The S / V relation and the orientation of the building have been carefully studied in order to maximize the energy efficiency of the building.

## Energy

### Energy consumption

Primary energy need : 98,00 kWhpe/m<sup>2</sup>.anno

Primary energy need for standard building : 120,00 kWhpe/m<sup>2</sup>.anno

Calculation method : Primary energy needs

CEEB : 0.0001

### Envelope performance

Envelope U-Value : 0,14 W/m<sup>2</sup>K

Indicator : n50

Air Tightness Value : 0,25

## Renewables & systems

### Systems

Heating system :

- Heat pump

#### Hot water system :

- Heat pump

#### Cooling system :

- Reversible heat pump

#### Ventilation system :

- Double flow heat exchanger

#### Renewable systems :

- Solar photovoltaic

## Products

### Product

Tavego®

Marlegno s.r.l.

info@marlegno.it

<http://www.marlegno.it/>

Product category : Opere strutturali / Struttura - Involucro - Finitura

Construction system for floor slabs and prefabricated load-bearing walls in wood, have been made by combining different layers of tables with only connectors wooden or steel screws, without the use of adhesives.

ENVIRONMENTAL SUSTAINABILITY is the key word for a design that puts the center of the MAN and NATURE:

- The raw material used is 100% Italian wood PEFC certificate.
- The absence of glues allows a fast prefabrication, with low energy consumption and minimal CO2 emissions, in addition to guaranteeing a better health of the environment.
- The section of the composition has been studied to ensure the maximum structural stability with reduced sections, to avoid any possible waste of raw material.
- The ceilings with exposed structure are characterized by a high aesthetic.

This is in addition to the structural quality, sustainable, insulating and aesthetic than a noble material such as wood already owns.

The Tavego® system is a registered patent.

For more info: [www.tavego.it](http://www.tavego.it)

The product has been extremely successful during construction operations due to its simplicity and speed of installation transport.

Users of the house believe that the absence of the glues inside the product is a great benefit to the healthiness of the interior spaces.



## Costs

### Urban environment

Villa perfectly integrated into the urban surroundings; Presence of public green spaces in the surrounding area and accessibility to public transport.

## Building Environmental Quality

### Building Environmental Quality

- indoor air quality and health
- acoustics
- comfort (visual, olfactive, thermal)
- energy efficiency
- renewable energies
- maintenance
- building end of life management
- products and materials

Building candidate in the category

