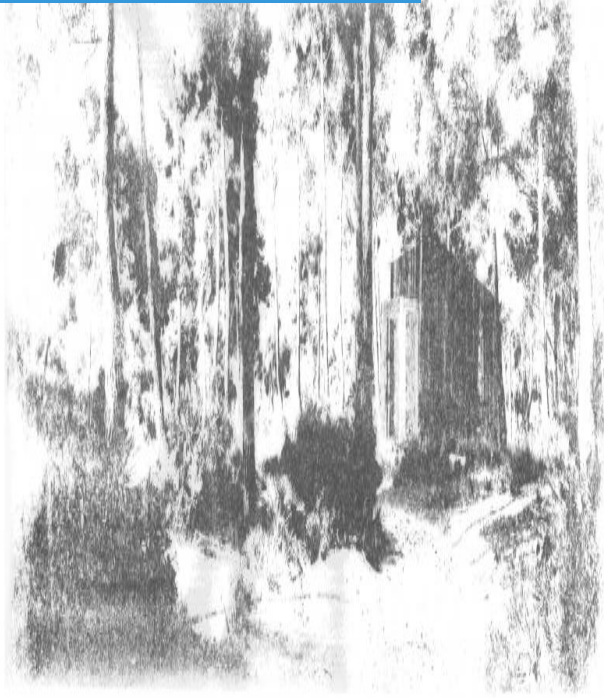


Uzala pavilion

by Francisco Cifuentes Utrero / 2014-11-13 19:47:47 / España / 2425 / EN

New Construction



Primary energy need :
34 kWhpe/m².year
(Calculation method : RD: 47/2007)

ENERGY CONSUMPTION

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

Energy-intensive building

Building Type : Other building

Construction Year : 2015

Delivery year : 2014

Address 1 - street : 07640 SES SALINES, España

Climate zone : [BSh] Subtropical Dry Semiarid (Steppe)

Net Floor Area : 25 m² Other

Construction/refurbishment cost : 27 759 €

Number of none : 1 none

Cost/m2 : 1110.36 €/m²

Proposed by :



General information

The Uzala Pavillon is a pilot project to test materials and construction systems. It is also a good example to test the performance once built, over time and use, until his removal after five years.

Data reliability

Self-declared

Stakeholders

Stakeholders

Function : Designer

Francisco Cifuentes + Sebastián Martorell

+34971723498 - aulets@aulets.net

<http://www.aulets.net>

Function : Developer

Aulet+Camp Lledó

Francisco Cifuentes, Andreu Garcias y Sebastià Martorell. 971723498

<http://www.aulets.net>

Function : Contractor

Function : Construction company

Naturallar

Francesco

Contracting method

General Contractor

Architectural description

The construction begins with a residue on the island. Tradition has given us examples of natural surplus to insulate our homes and belongings. Materials such as Posidonia (aquatic plant endemic in the Mediterranean) have been traditionally used as thermal insulation in houses near the coast. Today we have new surplus in our landfills such as paper, clothing and many others to discover. The pavilion is mainly constructed of a waste material which acts as thermal insulation. This is achieved with a wooden structure as light as possible and by reducing the material and weight, favoring transport to site. The pavilion consists of six panels that are constructed in the workshop, but the outer layer. Its function is similar to the bark of a tree: protect the interior from sun and from the water excess. This crust is built with recycled wood and not protected with any product, and will age similarly to the trunks of pines. The pavilion has two large windows, one to the north and one to the south. The south one is a glass gallery, similar to those found in urban areas. It is a mechanism to capture the winter sun and get energy gains. While the Mallorcan summer shade, ventilation and interior woodwork, will help in not obtaining energy gains in summer. The greenhouse is built of three wooden frames, and each contains a blind on the outside and a simple carpentry recycled glass inside. On the plane of the façade a carpenter wooden facade is placed, whose function is to close inside the pavilion gallery.

Energy

Energy consumption

Primary energy need : 34,00 kWhpe/m².year

Primary energy need for standard building : 149,30 kWhpe/m².year

Calculation method : RD: 47/2007

CEEB : 0.0042

Breakdown for energy consumption :

Heating Demand: 8.8 kWh / m²

Cooling Demand: 5.4 kWh / m²

Envelope performance

Envelope U-Value : 0,20 W.m⁻².K⁻¹

More information :

Cover = 0.15 W / m²K

Façade = 0.20 W / m²K

Slab = 0.20 W / m²K

Indicator : HE1 BD

Air Tightness Value : 0,30

Renewables & systems

Systems

Heating system :

- Others

Hot water system :

- Solar Thermal

Cooling system :

- No cooling system

Ventilation system :

- Natural ventilation
- Nocturnal ventilation

Renewable systems :

- Solar Thermal
- Wood boiler

Environment

GHG emissions

GHG before use : 206,00 KgCO₂ /m²

Building lifetime : 75,00 year(s)

Water management

Consumption of harvested rainwater : 8,26 m³

Products

Product

Riwega

info@naturllar.com

<http://www.riwega.com>

Product category :

Membrane with high breathability USB Classic Riwega

Solar gain through a greenhouse attached to the pavilion.

Aulet

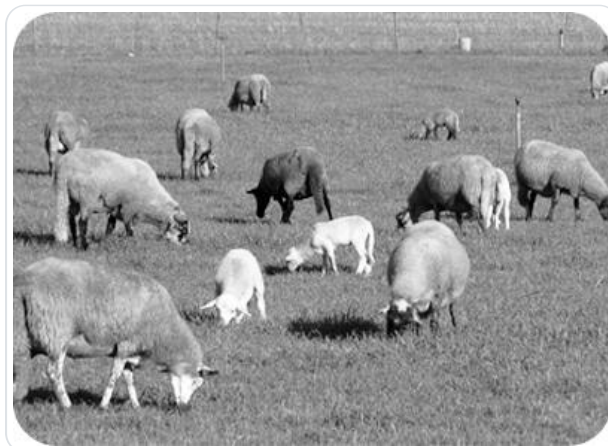
<http://www.aulet.net>

<http://www.aulet.net>

Product category :

Wool sheep

Process of local economic and social regeneration, where excess production of wool is used, treated with borax salts and formed into rolls.



Oceanic Posidonia

Aulet

<http://www.aulet.net>

<http://www.aulet.net>

Product category :

Use of the excess of Posidonia ocena plant extracted from the beaches, dried and placed in

greenhouse compacted panels.



Costs

Construction and exploitation costs

Renewable energy systems cost : 1 500,00 €

Total cost of the building : 27 759 €

Urban environment

The Pavelló Uzala of Ses Salines is located in the southeast of Mallorca, a warm area near the sea. The place where it is located is a pine forest, olive and lentic, a place of shade and protection left by the farmers in their fields.

Land plot area

Land plot area : 3 000,00 m²

Built-up area

Built-up area : 0,80 %

Green space

Green space : 2 973,00

Parking spaces

Parking on gravel

Building Environmental Quality

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

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