

## REEF SANSONE - Bar Restaurant

by [Massimiliano Pardi](#) / 2018-03-28 11:07:16 / Italie / 19535 / IT



New Construction

Primary energy need :

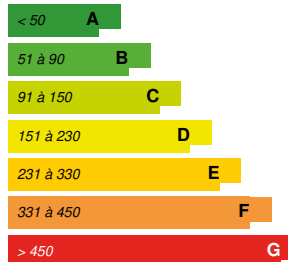
**704** kWhpe/m<sup>2</sup>.anno

(Calculation method : )

### ENERGY CONSUMPTION

Economical building

Building



Energy-intensive building

**Building Type** : Restaurant

**Construction Year** : 2017

**Delivery year** : 2017

**Address 1 - street** : CAMPING LA SORGENTE 57037 PORTOFERRAIO, Italia

**Climate zone** : [Csb] Coastal Mediterranean - Mild with cool, dry summer.

**Net Floor Area** : 71 m<sup>2</sup>

**Construction/refurbishment cost** : 250 000 €

**Cost/m2** : 3521.13 €/m<sup>2</sup>

### General information

### Data reliability

Self-declared

### Stakeholders

#### Contractor

Name : LAM AMBIENTE S.R.L.

#### Construction Manager

Name : MASSIMILIANO PARDI

## Stakeholders

Function : Designer

MASSIMILIANO PARDI

0565915494

<http://www.studiotecne2000.com/>

ARCHITECTURAL DESIGN AND WORK MANAGEMENT

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Function : Others

ALESSANDRA RANDO

3393455114

ENERGY DESIGNER

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Function : Others

ALESSANDRA MONCINI

3288151055

ENERGY CERTIFICATOR

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Function : Structures calculist

ELVIO BOLANO

3482609709

STRUCTURAL DESIGNER

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## Owner approach of sustainability

The project idea was born from the need to create a work that became a structure at the service of the beach of Samson Island of Elba, among the twelve most beautiful beaches in Italy, according to the famous American travel magazine Condé Nast Traveler. The project then went to place itself in a naturalistic context subjected to landscape protection and from here: what precautions, what attention, what aspects to highlight? The new Reef Sansone restaurant - bar is located on the promontory overlooking the beach, the interior of the Costa Bianca of Portoferraio in the National Park of the Tuscan Archipelago. The great value of the naturalistic context, its peculiar characteristics and the will to relate to them have influenced the whole generative process of the project. In the naturalistic context, continuous suggestions for morphological and material solutions, directing the design choices on the integration between environment and built. The new volumes and functional spaces have been included in the naturalistic context, favoring the use of natural materials, while the green design has been designed to design shaded areas of relaxation that, thanks to the shaded contours of the same, allows to the Mediterranean scrub itself to penetrate the project, thus becoming a further example of research for integration with the natural dimension.

## Architectural description

The frame structure of the building, made completely dry in iron and prefabricated wood, has allowed us to realize the work without carrying out earth movements. Even the indoor decking and the external terraces, made of wooden floorboards, are lifted from the ground in order not to change the original profile of the ground below. In order not to contaminate the site during the construction phase, it was decided to use natural materials such as insulating panels in wood fiber, for external frame walls, and mats in virgin sheep wool for internal walls and correction of thermal bridges. All this dry-mounted material will allow the dismantling of the entire structure, to leave the state of the places as found in origin. The body of the factory is built on three levels, in the first are the technical rooms and toilets, in the second the kitchen and bar area with the two outdoor terraces and on the third floor there is a panoramic terrace with a hanging garden. As exterior cladding, ventilated walls in natural wood have been mounted, similar in color to the holm oaks surrounding the structure. Always to better integrate the entire building landscape. In addition to the ventilated wooden walls, two vertical gardens cover most of the two facades of the building for which they were chosen blooms and aromatic plants that grow spontaneously in these places. The choice of indigenous plants that can be used in the kitchen is the result of the search for a useful and at the same time original and creative solution. A small hanging garden on the terrace encloses some plants of the Mediterranean scrub to find and recognize the typical vegetation that surrounds the structure. The meteoric waters, which represent a renewable source and require simple and inexpensive treatments for their reuse, have been collected in a special deposit, located above ground, thus allowing not to perform the excavation works necessary for its installation. The entire recovery cycle is reused for consumption for cleaning and watering the gardens. All systems are new generation and with the use of photovoltaic and bioclimatic devices, the building is in energy class A4.

## Energy

### Energy consumption

Primary energy need : 704,00 kWhpe/m<sup>2</sup>.anno

Primary energy need for standard building : 1 054,00 kWhpe/m<sup>2</sup>.anno

Calculation method :

CEEB : 0.0014

Breakdown for energy consumption :

Energy performance for EPH heating 136.62 kWh / m<sup>2</sup>

Energy performance for domestic water EPW 515.05 kWh / m2  
Energy performance for EPC cooling 15.47 kWh / m2  
Energy performance for EPL lighting 37.66 kWh / m2

## Envelope performance

Envelope U-Value : 0,25 W/m<sup>2</sup>K

Building Compactness Coefficient : 1,12

## Renewables & systems

### Systems

Heating system :

- Heat pump

Hot water system :

- Heat pump

Cooling system :

- Reversible heat pump

Ventilation system :

- Natural ventilation

Renewable systems :

- Solar photovoltaic
- Heat pump

Renewable energy production : 74,20 %

Solutions enhancing nature free gains :

VERTICAL VEGETABLE GARDEN AND WALL AND GLASS ORIENTATION BUILDING COMPARED WITH NATURAL PREMIUMING WINES AND SHADES.  
METEORIC WATER RECOVERY FOR WASTE DISCHARGE AND IRRIGATION GARDENS

## Environment

### GHG emissions

GHG in use : 44,00 KgCO<sub>2</sub>/m<sup>2</sup>/anno

Methodology used :

SERVICES

## Products

### Product

STEEL WOOD STITCH STRUCTURE

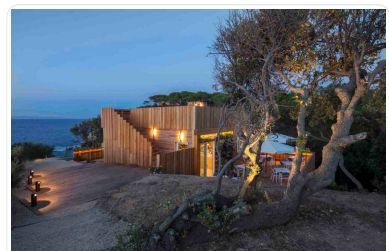
LAM AMBIENTE S.R.L.

LAM Srl - P.I. IT02072290519 - Tel. 0575 520 154 - 0575 527 065 - Fax 0575 527 065 - Via Nazionale 55 - Loc. Corsalone - 52010 - Chiusi della Verna (Ar)

<https://www.lamambiente.it/>

Product category :

The mixed system for steel and wood houses proposes a wall concept that is not too far from the Plat-form system in wood, but allows greater architectural design flexibility, given that the vertical steel bearing structures are punctual. It is therefore possible to construct buildings with large lights, hypothesising also posthumous interventions that can change, even significantly, the interior spaces. Galvanized steel is also a material with excellent static characteristics. The greater quality of the mixed system in wood and steel remains its high structural capacity which makes it a material suitable for the construction of buildings with large lights and subjected to important loads, all at very competitive costs.



WITH GREAT CONSIDERATION

## WOOD FIBER

Naturalia-BAU Srl

Naturalia-BAU Srl Via Carlo Abarth, 20 I-39012 Merano P.IVA: 02271920213 Tel: +39 0473 499 050 Fax: +39 0473 499 060

<http://naturalia-bau.it/>

Product category :

Thermal-acoustic insulation panel in wood fiber  
Advantages

- ✓ wood fiber from European forests with controlled renewability
- ✓ low water absorption
- ✓ excellent winter and summer performance

Product description

Insulation panel in wood fiber performance, density 120 kg / m<sup>3</sup>, wood quantity > 90% by weight of the product, measured thermal conductivity  $\lambda = 0.039 \text{ W / (mK)}$ , compression stress 60 kPa. Universal use, resistant to pressure for multiple applications in the roof and wall. Excellent protection from cold and heat. Produced with a dry system with low environmental impact.

## GOOD HYGROSCOPICITY OF THE INTERIORS

### SHEEP WOOL MATTRESSES

Manifattura Maiano s.p.a.

Manifattura Maiano s.p.a. Via Maiano 207 - 50013 Capalle (FI) Italy P.iva 00384310488 tel. +39 055 894071 - fax +39 055 8951330

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

Product category :

The sheep's wool, one of the oldest insulators also used in primitive constructions, is the ideal material to build according to the principles of green building.

Elastic and transpiring, it is an excellent air-conditioning fiber both against the cold and against the heat and has a remarkable hygroscopic capacity. The peculiar characteristic of sheep's wool is in fact to be water-repellent and at the same time to absorb moisture. This means that it repels water in liquid form but is also able to absorb water vapor up to 33% of its weight without appearing humid, thus favoring a natural regulation of humidity inside homes and reducing the risk of condensation with subsequent damage to the structure.

Thanks to its particular microstructure, sheep's wool is therefore proposed as an excellent and natural alternative to mineral fibers for thermal and acoustic insulation.

In addition, wool is a renewable and recyclable raw material whose transformation into an insulating panel requires a very low energy balance. To produce NATURTHERM WO, sheared wools are not suitable to be transformed into fabrics and yarns. The sheared wool is washed with natural soap and subjected to an anti-tartric treatment and is then carded and cohesed with the heat at 180 °, a passage that also ensures the sterilization of the product.

The NATURTHERM WO wool insulation is a material of excellent thermal and acoustic performance that thanks to the intrinsic qualities of the fiber and its breathability has the ability to filter and purify the air, making healthy the environments in which we live.

Complies with the minimum environmental criteria (CAM) according to DM 11/01/2017.

## GOOD THERMAL INSULATION

Wallcrete

KERAKOLL Spa Headquarter

KERAKOLL Spa Headquarter Via dell'Artigianato 9 - 41049 Sassuolo (MO) Italia Tel. +39 0536 816 511 - Fax +39 0536 816 598 e-mail: stefania.piccioni@kerakoll.com

<https://kerakolldesignhouse.com/>

Product category :

DATA INTAKE THE INSTALLATION KERAKOLL

Layers:

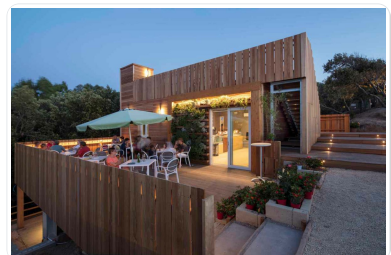
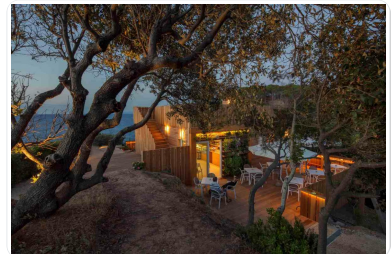
company Edil Green S.R.L. in collaboration with Alberto Romano.

The phases of the floors were as follows (Cementoflex):

- priming of the wood panels with SCL ep21 and quartz dusting with grouting of the fissures with floorzero and thickener;
- sanding, NET90 mesh installation and floorzero support layer and quartz dusting;
- sanding, cementoflex 1 laying and quartz dusting;
- sanding, cementoflex 2 laying;
- sanding, cementoflex 3 laying;
- sanding, cementoflex laying 4.

As for the coverings the bathrooms are made with Wallcrete:

- first hand writing with net90 net;
- drawing two hands of texture;
- application of three coats of microresina wall.



In the bar we used Paint both as painting and as a microriga for two walls of the bar, instead the internal doors were treated with Microresina.

## BEAUTIFUL FINISHES

### MINI-COOL APPLIQUE

SIMES S.p.A

Erika Fratus Marketing & Communication Dept. SIMES S.p.A Via G. Pastore 2/4 - 25040 CorteFranca (BS) - Italy Tel +39 - 030 9860465 - Fax +39 - 030 9860429 Web Site: [www.simes.it](http://www.simes.it) Via Giulio Pastore, 2, 25040 CorteFranca BS

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

Product category :

MINI-COOL APPLIQUE ILLUMINATION TO LEED

GOOD SCENIC EFFECT



Air seal

Rotho Blaas srl

Laura Dalvit Head of Marketing Phone: +39 0471086635 Mobile: +39 3486791192 Skype: laura.dalvit.rothoblaas Rotho Blaas srl Via Dell'Adige 2/1 - I-39040 Cortaccia (BZ) T. +39 0471 818400 - F. +39 0471 818484 [www.rothoblaas.com](http://www.rothoblaas.com) - [info@rothoblaas.com](mailto:info@rothoblaas.com)

<https://www.rothoblaas.it/azienda-rothoblaas>

Product category :

AIR TRANSPARENT WATER, STEEL FIXING SYSTEMS STEEL

GOOD PRODUCT



## Costs

## Urban environment

The project then went to include in a naturalistic context subjected to landscape protection and from here: what precautions, what attention, what aspects to highlight? The new Reef Sansone restaurant - bar is located on the promontory overlooking the beach, inside the Costa Bianca of Portoferraio in the Tuscan Archipelago National Park. The great value of the naturalistic context, its peculiar characteristics and the will to relate to them have influenced the entire generative process of the project.

## Building Environmental Quality

### Building Environmental Quality

- indoor air quality and health
- acoustics
- comfort (visual, olfactive, thermal)
- water management
- energy efficiency
- renewable energies
- building end of life management
- integration in the land
- building process
- products and materials

## Contest

### Reasons for participating in the competition(s)

In order not to contaminate the site during the construction phase, the company opted for the use of natural materials such as **wood fiber** insulating panels, for

the external frame walls, and **sheep's wool blankets** for the interior walls and correction of thermal bridges. **All this material mounted dry, will allow the dismantling of the entire structure , to leave the state of the places as originally found. As exterior cladding, ventilated walls in natural wood have been mounted, similar in color to the holm oak plants that surround the structure, always to better integrate the entire building into a landscape.** In addition to the ventilated wooden walls, two vertical gardens cover most of the two facades of the building for which they have been chosen blooms and aromatic plants that grow spontaneously in these places. The choice of indigenous plants that can be used in the kitchen is the result of the search for a useful and at the same time original and creative solution. A small hanging garden on the terrace encloses some Mediterranean plants to find and recognize the typical vegetation that surrounds the structure. The meteoric waters , which represent a renewable source and require simple and inexpensive treatments for their re-use, have been collected in a special deposit, located above ground, thus allowing not to realize the excavation works necessary for its installation. The entire recovery cycle is reused for consumption for cleaning and watering the gardens. All systems are of new generation and with the use of photovoltaics and bioclimatic devices, the building is in energy class A4 .

## Building candidate in the category



Energia e Climi Temperati



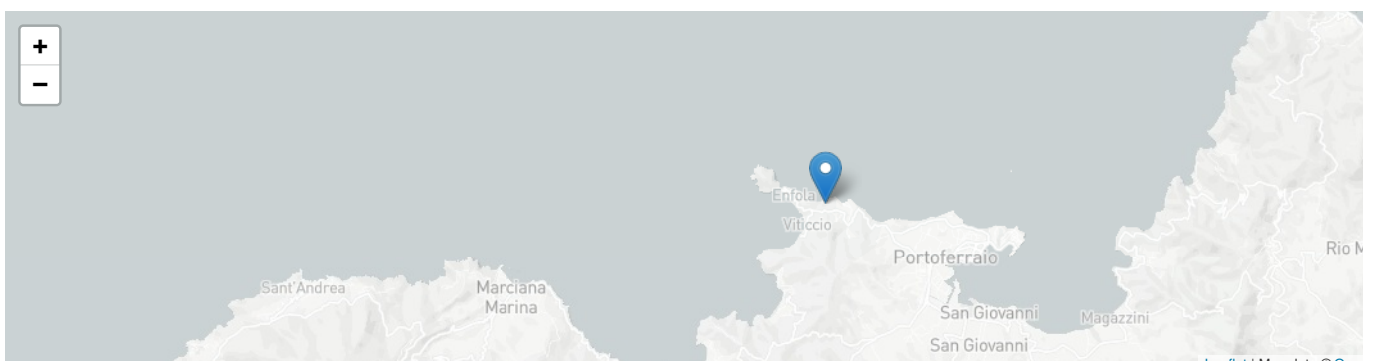
Bassa Emissione di Carbonio



Salute e Comfort



Utenti Preferito



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