

- Category: new construction in the Ligurian landscape
- Case Study: Passive House Dionisi, Cogoleto (GE)

● ● ● **ITALY**
Province of Savona



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Client Mr. Roberto Dionisi – Cogoleto (GE)
Project *Ing. Alessandro Leardi –PHZ srl –Novi Ligure (AL)*
Constructor Delfino Costruzioni s.a.s. – Cogoleto (GE)
Date 2009



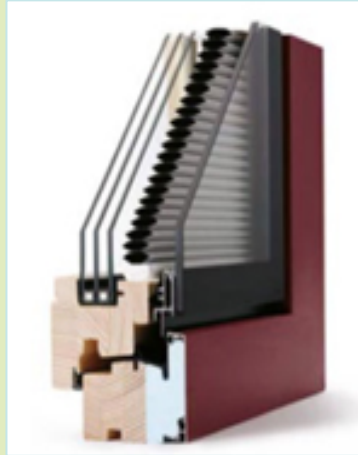
●●● Context

The town of Cogoleto, included in the Regional Natural Park of Beigua, is located along the coast of the Ligurian Riviera di Ponente, about 30 km west of Genoa. It is bordered to the north with the municipality of Sassello, on the south by the Ligurian Sea, west Varazze (SV) and east Arenzano (GE). The house of 160 square meters, is located in the hinterland hills of Cogoleto, about 100 meters above sea level, near the A10 motorway, surrounded by typical Mediterranean vegetation-Ligurian.

●●● Description

First passive house in Liguria was born on devising PassivHaus Zentrum (PHZ), thermally and acoustically insulated, energy self-sufficient, high living comfort, built using local materials (wood, stone) environmentally friendly, energy efficient technical solutions and harmonious architectural solutions. The main technical solutions adopted are: glass wool panel CAPP8 for the thermal insulation of external walls of buildings, high-density (140 +120 mm double layer), which guarantees energy savings, thermal comfort and noise windows Internorm VARION 4, , triple glazing, Saint-Gobain Glass low emissivity and solar control, underground heat exchanger is connected to controlled ventilation system that makes an important contribution to the winter heating and summer cooling, 3 solar panels, which ensure the production hot water; 24 monocrystalline silicon solar panels, 2 rainwater tanks (capacity 10,000 liters).

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Evaluation

The first passive house, or "home from Euro 0" as it is called so perhaps venial guarantees its residents thermal comfort and noise pollution, environmental sustainability and virtually no running costs. These performances are obtained thanks to efficient housing simultaneously adequate insulation of the walls, a high technological quality of windows and glass, and a controlled ventilation system. Installation of photovoltaic panels and solar energy that can eliminate the cost, making it the home of Cogoleto a true "home from Euro 0". With simultaneous application of different energy measures and the choice of architecturally harmonious solutions, the cottage appears to be functional and comfortable at the same time integrating the aesthetic in the environment, respecting the canons of construction materials with the help of local Ligurian .

Potential for transerability

The adoption of energy efficient technology such as thermal insulation of high thickness, controlled mechanical ventilation, windows with triple glazed low emissivity, the removal of thermal bridges and air tightness, the fundamental pillars of the concept of " passive house "- Passivhaus, developed in a climate different from that of northern Europe also shows adaptation Mediterranean climate regimes to obtain a high degree of efficiency.



Natural stone cladding, partitions gas concrete, insulation bearing masonry, lime plasters, low-emissivity glass

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PT - Fuel storage and technical room (left), tower air cooler (out)



1. P. - Input level apartment and garden

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