

PassivPalau, a candidate at the Green Building Solutions Awards 2015

The certified Passivhaus PassivPalau represented PAPIK Group at Construction21's international awards, as an example of high-efficiency construction with a favourable carbon balance.

Construction21, the platform behind the Green Building Solutions Awards, opened voting in 2015 to recognise projects in high-efficiency construction. The international competition seeks to give visibility to exemplary buildings and to solutions that contribute to the fight against climate change. PAPIK Group entered PassivPalau, a certified Passivhaus built in Palau-solità i Plegamans.

A home that confirms the theoretical figures

PassivPalau is a single-family home of 107 m² of usable floor area. During its first year in use it showed that its real-world energy performance matched the projections from the calculations and the certification tests. The house holds interior comfort through winter as well as through the most demanding stretches of summer.

The clearest demonstration came during a heatwave in which the outdoor temperature reached 40 °C. With no cooling equipment of any kind, the interior did not exceed 25 °C, and the perceived temperature was noticeably lower. That result is the practical translation of the principle that governs every Passivhaus home: cut energy demand to the point where comfort no longer depends on machinery.

A favourable carbon balance

PassivPalau illustrates a model of sustainable construction in which the building, across the entire construction process, absorbs more CO₂ than it emits. The key is timber: as the tree grows it captures more carbon dioxide than is later released when the wood and the remaining materials are processed.

All the timber used is certified under the FSC label, which guarantees that for every tree felled a new one is planted. This is not only a matter of environmental awareness. It is an industry that manages forest plantations while keeping woodlands healthy and well maintained, and that helps prevent pests, fires and deforestation.

The least-polluting watt

The philosophy behind the project comes down to a simple idea: the least-polluting watt is the one never consumed. Building homes able to offer interior comfort without depending on continuous energy use is, for PAPIK Group, the soundest guarantee of sustainability. PassivPalau, with no energy mortgage, brought that premise to the Construction21 vote as a sample of the path that passive houses follow.

A house that holds 25 °C indoors while it is 40 °C outside, with no cooling, is not a marketing promise: it is a figure, and it is the real argument for Passivhaus construction.