

# PASSIVE HOUSE



Did you know that buildings are responsible for up to 56% of the pollution in our cities, compared to 13% that comes from car emissions, and they consume around 40% of primary energy. Just those facts alone show you how important an environmentally friendly building is for the environment. **Villa Alcuucz** is the first large, luxury residential villa in Spain to be built under

the demanding standards of PassiveHaus (Passive House). The project, developed by Bright, has been recognised by the prestigious International Property Awards with the awards 'Best in Spain' and 'Best in Europe' in the category of Architecture Single Residence.

So, who is Bright? Bright is a real estate developer with a radically different

approach, in which design comes first. The company was founded by **Michael Rodziewicz** and **Jason Harris**, creative director of **UDesign**, an architecture and interior design firm based in Marbella since 2008. The combination of design studio and developer in the same team produces exceptional results. Not surprisingly Bright's motto is 'to improve the quality of life through design.'



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In Europe there are only 25,000 certified PassiveHaus homes built under their strict standards of sustainability and energy efficiency, 101 of them are in Spain, of which Villa Alcuucz is the only one in the Marbella area.

PassiveHaus was developed in the 1980's in Germany in order to build houses with minimum energy consumption, and if at all possible, null consumption. 'Passive Housing' does not use contaminating energy methods, such as burning fuel, to produce and create a comfortable room temperature. Thus, this type of construction discards the usual cooling or heating mechanisms and yet manages to maintain an internal temperature of around 20°C or 21°C throughout the year. Over the course of a year, a Passive House consumes at most the equivalent of 1.5 litres of diesel or 1.5 m3 of natural gas (15kWh) to heat or cool each square meter of living space. This figure represents a reduction of more than 75 percent in energy consumption for air conditioning spaces, compared to the consumption in a typical building, while a new conventional building requires 6 to 10 (or even more) litres of diesel fuel per year and square meter of living space, depending on the quality and location of the building.



Villa Alcuucz is the first large, luxury home that respects the environment and is built in accordance with the Passive House Regulations and Standards and, in addition, stands out for having exquisite design that is arranged around a large central glass living space (with windows 6.5m high, something unprecedented in this type of construction) with privileged views of the Mediterranean Sea and the Strait of Gibraltar.

Along with the Passive House building standards, Villa Alcuucz uses an arothermal ventilation system and solar panels for water supply, underfloor heating and the LED lighting system. The design is also adapted to the plot, orienting the house to the south to take

advantage of southern Spain's mild climate. Thus, the terraces are designed as large awnings that protect the house, giving shade inside and allowing heat to enter during the winter.

Bright and UDesign took on the challenge of designing a residential villa where they could show that luxury and acclimatisation of large spaces (1,323 m2) are not at odds with sustainability and they achieved just that, and more.



[www.villa-alcuucz.com](http://www.villa-alcuucz.com)