

# Certificate

**ENERGIEHAUS ARQUITECTOS awards the seal “Certified EnerPHit-retrofit”  
to the following building**

**Casa Hilaria, C/Santiago 10, Logroño, Spain**



Client: CÉSAR RAÚL SARABIA LORENZO  
CALLE SANTIAGO 10, 26001 LOGROÑO, SPAIN

Energy IGLU ENERGY SAVINGS SL  
consultor: GRAN VIA DIEGO LOPEZ DE HARO 19-21 2º  
48001 BILBAO, SPAIN

Construction OBRAS DE CONSTRUCCION E INSTALACIONES SA  
firm: PLAZA DEL MERCADO 12  
26001 LOGROÑO, SPAIN

**This building was designed to meet EnerPHit criteria as defined by the Passive House Institute. With appropriate on-site implementation, this building will have the following characteristics:**

- Excellent thermal insulation and optimised connection details with respect to building physics. The heating demand or heating load will be limited to  
**20 kWh per m<sup>2</sup> of living area and year**
- When outdoor temperatures are high, thermal comfort can be ensured with passive solutions or with minimal energy demand for cooling and dehumidification according to the location-specific Passive House requirements.
- A highly airtight building envelope, which eliminates draughts and reduces the heating energy demand: The air change rate through the envelope at a 50 Pascal pressure difference, as verified in accordance with ISO 9972, is less than  
**1.0 air changes per hour with respect to the building's volume**
- A controlled ventilation system with high quality filters, highly efficient heat recovery and low electricity consumption, ensuring excellent indoor air quality with low energy consumption
- A total primary energy demand for heating, domestic hot water, ventilation and all other electric appliances during normal use of less than  
**120 kWh per m<sup>2</sup> of living area and year**

This certificate is to be used only in combination with the associated certification documents, which describe the exact characteristics of the building.

EnerPHit certified buildings offer high comfort throughout the year and can be heated or cooled with little effort, for example, by heating/cooling the supply air. Even in times of cold outdoor temperatures the EnerPHit certified building envelope is evenly warm on the inside and the internal surface temperatures hardly differ from indoor air temperatures. Due to the highly airtight envelope, draughts are eliminated during normal use. The ventilation system constantly provides fresh air of excellent quality. Energy costs for ensuring excellent thermal comfort in a EnerPHit certified building are very low. Thanks to this, EnerPHit certified buildings offer security against energy scarcity and future rises in energy prices. Moreover, the climate impact of EnerPHit certified buildings are low as they reduce energy use, thereby resulting in the emission of comparatively low levels of carbon dioxide (CO<sub>2</sub>) and air pollutants.

issued: Barcelona, 10.08.2016



Micheel Wassouf

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