

RESIDENTIAL BUILDING OF ENERGY CLASS A+

ANASTASEOS 72, PAPAGOU

BUILDING SPECIFICATIONS

The building is ranked in the highest energy class A+, according to the Energy Efficiency Regulation of buildings (KENAK).

The building, according to the energy study, consumes 31,70kWh/m² for its needs in Heating, Air Conditioning and Hot Water use. The minimum permissible category for a building being constructed today is the class B+ corresponding to a consumption of 80,47kWh/m². The building in total, as well as each apartment in particular, has:

Strong insulation in the building elements of the shell and openings (above the requirements of the current regulation) are offered, which greatly reduce the energy needs of the building in heating and air conditioning.

For the heating, an atomic boiler gas has been installed which will work with natural gas that offers a very high degree of efficiency (>1). The distribution of heat in space is done with an underfloor heating system that provides top comfort and economy. Regarding the air conditioning there have been high energy class heat pumps installed. For the hot water use, solar panels with boiler will be installed in the building's roof. For the case when this will not be sufficient, due to a lack of sunshine or

increased demand, there will be an automatic contribution of hot water from the gas heater, so that hot water will be constantly available, under maximum energy savings.

Photovoltaic elements will be placed in the rooftop. They will generate electricity which through the inverter it will be channeled in the electricity company network. All of the above results in reducing the energy consumption of the building to the levels mentioned above and its classification to the upper energy consumption category which is A+

Installation and material specifications

Category C30/37 concrete, protection class to corrosion XC4, reinforcement steel B500c

STO's external ETICS system.

REHAU underfloor heating system.

Atomic wall boiler gas; condensation exhaust gas; high energy efficiency for heating and production of hot water for use, during days when the production of solar collectors is insufficient.

MultiSplit air conditioning system with indoor units Installation of solar collectors in the building's rooftop for hot water use.

Installation of photovoltaic cells in the building's rooftop for electricity generation.

Alarm installation in the houses.

Installation of data in all areas of the residence ·

Installation of central ground antennae and wiring infrastructure for TVSAT.

System Installation entryphone in interface with main entrances of the building and the lot.

Installation of fire detection system.

Infrastructure for placing electric car chargers in the underground parking.

Low energy MRL elevator thanks to VVVF technology.

Outside frames aluminum with thermointerruptible profiles, dual energy crystals and special insulated box roll. For every came, there will be a certificate of calculation for the U_w (thermal transmittance for the total system: aluminium frame - energy glass -roll box), which will be equal to or less than the U_w of the thermal insulation study for the respective frame. The peration of the rolls will be achieved with wireless mechanisms of the company Somfi.

Indoor residential doors with acrylic lacquer paint.

Security doors at the entrances of apartments, certified in security class 4.

Wardrobes in the bedrooms with ergonomic interior design and height of this space.

Pre-polished wooden parquet for floors of indoor spaces other than baths, certified for being placed on floors that operate with underfloor heating.

Modern aesthetic design approach to the baths including suspended ceiling with hidden lighting and lighting spots, built furniture, selection of Italian tiles A' class, large dimensions, built-in flush, sanitary ware and batteries of famous companies.

Construction of suspended ceilings in parts of residence in accordance with the architectural study.

Fireplace of minimal aesthetics.

Kitchen furniture of the Italian company STOSA.

At the end of the project a digital folder with all the material quality certificates, photo material from all the stages of construction of the project and a user guide for the operations of systems and are delivered to each owner.