CHADA Villas of Al Omrane Group / New Town Lakhiayta

by Kamal MALTOUFI / 2018-05-26 16:03:19 / Maroc / 9974 / FR

Primary energy need :

40 kWhep/m^2.an

(Calculation method : RTCM)

ENERGY CONSUMPTION

Economical building

< 50	A	
51 à 90	B	
91 à 150	C	
151 à 230	D	
231 à 330	E	
331 à 450	F	
> 450	G	

Energy-intensive building

Building **A**

Building Type : Terraced Individual housing
Construction Year : 2017
Delivery year : 2018
Address 1 - street : Pôle Urbain et Industriel Omrane Sahel 26402 HAD SOUALEM, Maroc
Climate zone : [BWk] Mid-latitude Dry Arid (Desert)

Net Floor Area : 224 m^2
Construction/refurbishment cost : 140 000 €
Number of Dwelling : 1 Dwelling
Cost/m2 : 625 €/m^2

General information

The "Villas CHADA" project is one of the first projects in Morocco to respect the new national thermal regulations (RTCM). Indeed, it is distinguished by its thermal and acoustic efficiency, its hot water production by solar panels, and a photovoltaic installation that can supply the network of the house, remaining independent of the electrical circuit.

Data reliability

Assessor

Stakeholders

Contractor

Name : Al Omrane Lakhiayta

Contact : Kamal MALTOUFI : 06 78 88 84 98 email : k.maltoufi@alomrane.gov.ma
http://www.alomrane.gov.ma/

Construction Manager

Name : KABBAJ architecte

Stakeholders

Function : Contractor

Holding Al Omrane

Owner approach of sustainability

As part of the group's sustainable development policy, Al Omrane Lakhiayta is committed to building the "Villas CHADA" pilot project in energy efficiency and will become one of the first projects to comply with the new RTCM thermal regulation.

Energy

Energy consumption

Primary energy need : 40,00 kWhep/m^2.an

Primary energy need for standard building : 193,00 kWhep/m^2.an

Calculation method : RTCM

CEEB : 0.0011

Envelope performance

More information :

The integration of the Orobrique KASBAH System thermal brick (type: base part) at the level of the external partitions.

Renewables & systems

Systems

Heating system :

- No heating system

Hot water system :

- Solar Thermal

Cooling system :

- Solar cooling

Ventilation system :

- Natural ventilation

Renewable systems :

- Solar photovoltaic

Renewable energy production : 99,00 %

Environment

GHG emissions

GHG in use : 5,00 $KgCO_2/m^2$/an

GHG before use : 20,00 $KgCO_2$ /m^2

Building lifetime : 30,00 an(s)

, ie xx in use years : 4

Indoor Air quality

A very neat architectural design with large openings and bay windows allowing optimal natural ventilation and a quality of holy air.

Comfort

Health & comfort :

The project favors the following elements:

- South orientation for day rooms;
- Terracotta brick for interior walls that receive winter solar radiation;
- Provide in the North the rooms with little heat;
- Group night rooms that are less heated in general.

Acoustic comfort :

An acoustic comfort higher than 54 dBA.

Products

Product

Thermal brick KASBAH System

OROBRIQUE

Km 22 route de Khouribga - Riah - BP. 434 - 26100 Berrechid

http://www.orobrique.ma/

Product category : Table 'c21_spain.innov_category' doesn't exist SELECT one.innov_category AS current,two.innov_category AS parentFROM innov_category AS oneINNER JOIN innov_category AS two ON one.parent_id = two.idWHERE one.state=1AND one.id = '6'

The outer casing of the villas is made in single wall with thermal brick terracotta "Kasbah system", optimizing the thermal comfort (U = 0.7) and acoustic (54dBA) villas.

Very interesting product in thermal and acoustic insulation.

Costs

Urban environment

Spread over an area of 50,000 m², the project "Villa CHADA", is located in the third phase of the urban and industrial pole Al Omrane Sahel and well served directly by the Highway and the National Road No. 1 (Casa-El Jadida). It consists of 108 finished villas, 2 amenities of general interest and 2 spaces of games & sports and green spaces.

Common green space in the project = 1123 m² (knowing that the project is located in front of a green leisure area of 2.3ha and an existing forest of 40 ha).

Green space

Green space : 1 128,00

Building Environnemental Quality

Building Environmental Quality

- indoor air quality and health
- acoustics
- energy efficiency

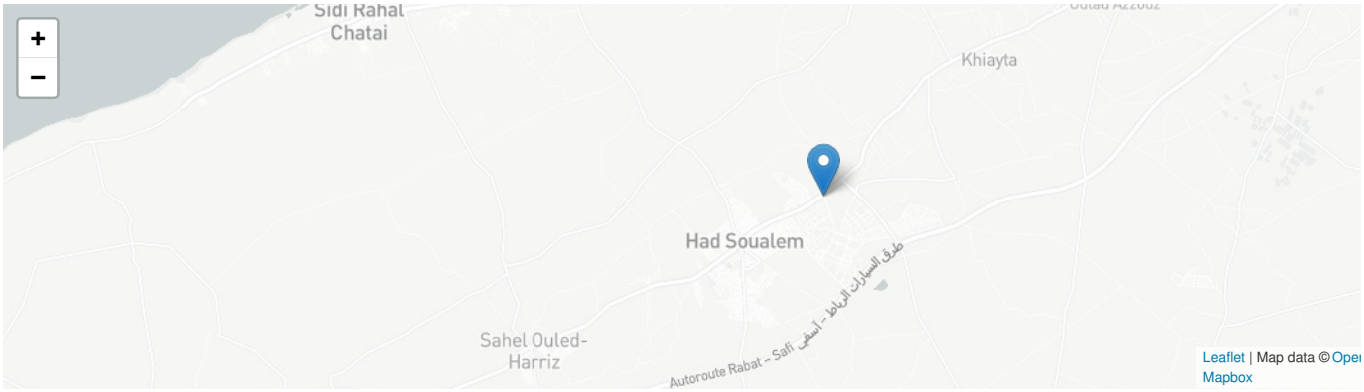
- renewable energies
- products and materials

Contest

Building candidate in the category

Energie & Climats Chauds

Coup de Cœur des Internautes



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