House Type Ksar Tafillelt

by abderrahmane zidane / 2016-05-15 11:47:37 / Algeria / 20874 / FR

Primary energy need :

100 kWhep/m^2.an

(Calculation method : Other)

ENERGY CONSUMPTION

Economical building *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 Type : Collective housing > 50m
Construction Year : 2010
Delivery year : 2014
Address 1 - street : Ksar tafilelt 47131 TAFILELTE - GHARDAIA , Algérie
Climate zone : [BWh] Subtropical dry arid

Net Floor Area : 180 m^2 Other
Construction/refurbishment cost : 9 000 000 €
Number of Dwelling : 1 080 Dwelling
Cost/m2 : 50000 €/m^2

General information

A home that makes up the new Ksar Tafilelt has Ghardaia, located at the entrance of the city, it serves as a bed house. Made of local materials extracted on site, stone, lime and plaster. It is part of a set of 1,000 social housing for vulnerable social groups. The approach is primarily social and envirronementale

Data reliability

Self-declared

Stakeholders

Stakeholders

Function : Contractor

FONDATION AMIDOULE

Mr AMARA MOUSSA

http://www.tafilelt.com/

Contracting method

Off-plan

Owner approach of sustainability

local materials: stone, lime and plaster available on site. Local labor and voluntary approach. public housing

Architectural description

Inspiration of the local architecture of Saharan type

A

If you had to do it again?

An expansion project is planned in the area

Building users opinion

totally satisfied

Energy

Energy consumption

Primary energy need : 100,00 kWhep/m^2.an

Primary energy need for standard building : 350,00 kWhep/m^2.an

Calculation method : Other

Final Energy : 50,00 kWhef/m^2.an

Breakdown for energy consumption :
80% of the energy for the lighting has comes from solar energy PV

More information :
The energy audit of this housing is being developed

Envelope performance

Envelope U-Value : 1,00 $W.m^{-2}.K^{-1}$

More information :
Very high thermal inertia of the envellope

Renewables & systems

Systems

Heating system :
- Gas boiler

Hot water system :
- Gas boiler

Cooling system :
- Fan coil

Ventilation system :
- Natural ventilation
- Nocturnal ventilation
- Nocturnal Over ventilation

Renewable systems :

- Solar photovoltaic

Renewable energy production : 50,00 %

Environment

GHG emissions

GHG in use : 50,00 $KgCO_2/m^2/an$

Methodology used : other

GHG before use : 1 000,00 $KgCO_2 /m^2$

Building lifetime : 100,00 an(s)

, ie xx in use years : 20

Life Cycle Analysis

Eco-design material : Lime plaster Stone

Tout les matriaux sont extrait sur site localement

Products

Product

local stone

LOCAL

LOCAL

http://tafilelt.com/site/

Product category : Table 'c21_italy.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'

LOCAL STONES

SC

Plaster

naturel

Product category : Table 'c21_italy.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 gypsum ghardaia is one of the most used local materials in the regions

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Costs

Construction and exploitation costs

Global cost : 12 000,00 €

Reference global cost : 12 000,00 €

Global cost/Dwelling : 11.11

Reference global cost/Dwelling : 12000

Cost of studies : 1 €

Total cost of the building : 9 000 €

Subsidies : 7 000 €

Energy bill

Forecasted energy bill/year : 150,00 €

Real energy cost/m2 : 0.83

Real energy cost/Dwelling : 0.14

Urban environment

INTEGRATED IN KSAR

Building Environnemental Quality

Building Environmental Quality

- Building flexibility
- indoor air quality and health
- biodiversity
- works (including waste management)
- consultation - cooperation
- acoustics
- comfort (visual, olfactive, thermal)
- waste management (related to activity)
- water management
- energy efficiency
- renewable energies
- integration in the land
- building process
- products and materials

Contest

Building candidate in the category

Energie & Climats Chauds

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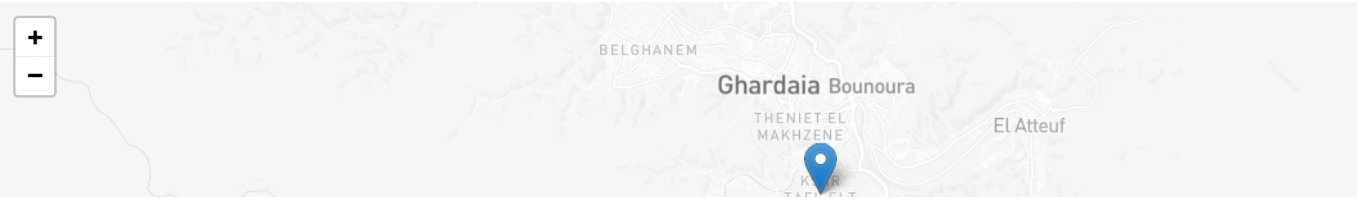
Coup de Coeur des Internautes



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