THE EPICERIE AM DUERF

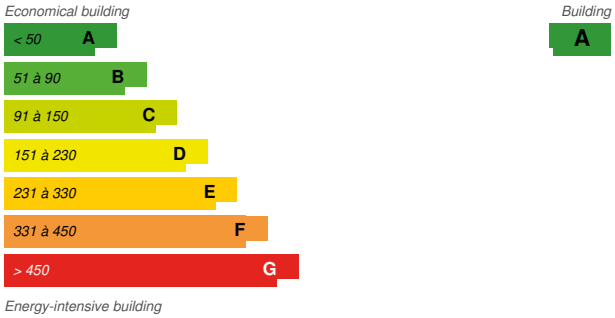
by Rose-Hélène SIMON / 2015-07-07 16:13:52 / Luxembourg / 9878 / FR

Primary energy need :

60.6 kWhep/m².an

(Calculation method : RGD du 31 août 2010 - bâtiment fonctionnel)

ENERGY CONSUMPTION



Building Type : Other building
Construction Year : 1800
Delivery year : 2013
Address 1 - street : 17, rue principale L-9184 SCHRONDWEIER, Luxembourg
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 354 m² Autre type de surface nette
Construction/refurbishment cost : 700 000 €
Cost/m2 : 1977.4 €/m²

General information

This former café, which is a list building, has been renovated as a mixed-use building containing a grocer's shop with light refreshments, a holiday accommodation and a flat.

See more details about this project

http://epiceriei.cluster013.ovh.net/index.php?option=com_content&view=article&id=29&Itemid=198

Data reliability

Assessor

Stakeholders

Stakeholders

Function : Designer

BENG ARCHITECTES ASSOCIES

ALBERT GOEDERT

http://www.beng.lu/fr/
Full assignment to architect

Contracting method

Separate batches

Owner approach of sustainability

The building will be heated by a wood pellet-fired boiler. All of the rooms are fitted with ventilation with heat recovery. Chilling for the cold cell and the refrigerated display cabinets is produced by a central unit, the heat from which is recovered for the domestic hot water and to boost the underfloor heating. With a view to preserving the historical site, insulation has been placed inside the masonry; the old window frames have been double-glazed on the inside. The desire to renovate meant that the majority of the building was retained, thus reducing the use of new materials (rubble stone masonry, wooden beams, floors and parquet floors, external woodwork, tiles and roof sheeting, internal stairs, doors and furnishings, stucco ceiling, outbuilding built from breeze blocks and concrete slabs). The new materials used are: natural, laminated wood for the framework and the parquet floors; glass foam as insulation beneath the reinforced concrete floor slab; cellulose and wood fibres as insulation for the roof truss and the brickwork. The internal dividing walls are made from lime-cement blocks with lime-cement and clay coatings. Solid wood parquet floors and tiles are used for the floor coverings.

Architectural description

The former Ernzer café stands in an exposed position on the village's main crossroads. The building is 200 years old, with espalier pear trees climbing the front wall and a walnut tree in the yard drawing the attention of passers-by. The juxtaposition of the double gable end of the café and its outbuilding underlines this distinctive appearance. The same is true of the inside. The various stages of its architectural evolution down the years are still visible: - the 19th century kitchen, smokehouse, floors and stairs will be restored, - the cafe, fitted out in 1920 with its stucco ceilings, external and internal woodwork, parquet floor, - the old floors and parquet floorings in the various rooms will be renovated. The renovation project for the listed building helps to preserve this historic building. The shop radiates an authentic charm, thanks to its architectural design. It is finished off with contemporary design features. The site and the setting contribute to the success of the project, since they are reflected in the inherent quality and originality of the project.

Energy

Energy consumption

Primary energy need : 60,60 kWhep/m^2.an

Primary energy need for standard building : 176,60 kWhep/m^2.an

Calculation method : RGD du 31 août 2010 - bâtiment fonctionnel

CEEB : 0.0002

Breakdown for energy consumption :
5,700 kg of pellets (2014)
31,061 kWh (2014)

Initial consumption : 1,00 kWhep/m^2.an

Envelope performance

Envelope U-Value : 0,40 $W.m^{-2}.K^{-1}$

Indicator : EN 13829 - q50 » (en m3/h.m3)

Air Tightness Value : 2,00

Renewables & systems

Systems

Heating system :
- Others

Hot water system :
- Other hot water system

Cooling system :
- No cooling system

Ventilation system :

- Double flow heat exchanger

Renewable systems :

- Wood boiler

Other information on HVAC :

No cooling, the chilling for the cold cell and the chilled display cabinets is produced by a central unit, the heat from which is recovered for the domestic hot water and to boost the underfloor heating.

The building is heated by a wood pellet-fired boiler which also provides DHW.

Products

Product

Misapor crushed glass foam

MISAPOR

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http://www.misapor.ch/FR/Home.html

Product category : Second œuvre / Cloisons, isolation

Misapor concrete is a high-quality insulating concrete for construction which has excellent thermal insulation properties.
The advantages of Misapor concrete and glass foam aggregate (in the form of granules) are particularly apparent: this construction material is not only durable, with good compressive strength, load-bearing, waterproof, frost-resistant and vapour-permeable but it can also be easily combined with traditional concrete for floors and ceilings.
U value of 0.15 W/m2K for 44 cm with the Misapor integrated insulation system
Strength class LC8/9 and LC12/13
Apparent density of between 950 and 1250 kg/m3

When it comes to insulation from the ground, there are several reasons which make Misapor glass foam the best choice in this field.
Misapor not only provides comprehensive insulation but it also stabilises the construction surface and stands out for its excellent drainage. Even in terms of installation, glass foam is the way forward: using Misapor for the all of the under-floor foundations can reduce construction time by up to 3 days.

Udi INSULATION

info@udiinsulation.fr

WWW.UDIINSULATION.FR

Product category : Second œuvre / Cloisons, isolation

Costs

Urban environment

The motivation for the "Epicerie am Wuess" project lay in preserving a charming old rural café which is of considerable historical value, the perceived lack of nearby shops for local residents and providing a professional focus for the future owner. In an attempt to diversity to ensure financial success, additional activities have been combined with the basic idea of a shop. In addition, the "am Wuess" grocer's shop is located at the crossroads of the CR346, between Schieren and Nommern, and the CR115, between Cruchten and Medernach. This is the busiest crossroads in the area (2,700 passing vehicles per day, in all directions. Source: Ponts et Chaussées survey 2011). The bus stop is served by route 403 and the school bus stops 20 metres from the shop.

Land plot area

Land plot area : 520,00 m^2

Built-up area

Built-up area : 200,00 %

Green space

Green space : 70,00

Parking spaces

5

Building Environnemental Quality

Building Environmental Quality

- indoor air quality and health
- consultation - cooperation
- comfort (visual, olfactive, thermal)
- energy efficiency
- renewable energies
- building end of life management
- integration in the land
- products and materials

CONTEST

Building candidate in the category

Matériaux bio-sourcés et recyclés

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