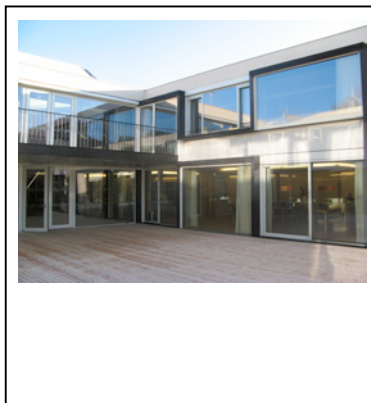


Evaluation ENERBUILD-Tool – existing building

Social center Klosterreben



1 Basic information about the building

Name of the building	Social center Klosterreben
Address of the building	A-6830 Rankweil, Klosterreben 4, Austria
Owner/investor	Municipality of Rankweil
Year of construction	In construction
Building type	Social center
Building method	Solid construction
Number of buildings	1
Number of levels above earth	3
Number of levels underground	1
Kind of the public use	Social center
Effective area for public use in m ² (net)	4230
Additional private uses	-
Effective area for private use in m ² (net)	-
Total effective area in m ²	4230
Source of energy for heating	Biomass
Heating system	Teleheating
Water heating system	Teleheating
Date of the building evaluation	-

2 Execution of the building evaluation with the ENERBUILD tool

Responsible Organisation: Spektrum GmbH, A-6850 Dornbirn, Austria

Contact person: DI Dr. Karl Torghele

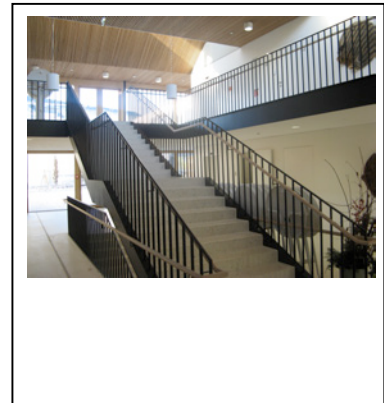
Telephone: 0043 5572 208008 Email: karl.torghele@spektrum.co.at

Temperature for thermal comfort in summertime: 26 °C

Local limits for heating demand: (PHPP) 25 kWh/m²

3 Results

Nr.	Title	Must criteria (M); Minimum standard	max. points	Points
A				
	Quality of location and facilities		max. 100	84
A 1	Access to public transport network		50	48
A 2	Ecological quality of site		50	36
B				
	Process and planning quality		max. 200	155
B 1	Decision making and determination of goals		25	0
B 2	Formulation of verifiable objectives for energetic and ecological measures	M	20	20
B 3	Standardized calculation of the economic efficiency	M	40	30
B 4	Product-management - Use of low-emission products		60	60
B 5	Planning support for energetic optimization		60	20
B 6	Information for users		25	25
C				
	Energy & Utilities (Passive house)		max. 350	191
C 1	Specific heating demand (PHPP)	M	100	40
C 2	Specific cooling demand (PHPP)	M	100	73
C 3	Primary energy demand (PHPP)	M	125	68
C 4	CO ₂ -emissions (PHPP)		50	10
D				
	Health and Comfort		max. 250	115
D 1	Thermal comfort in summer		150	65
D 2	Ventilation - non energetic aspects		50	40
D 3	Daylight optimized (+ lightening optimized)		50	10
E				
	Building materials and construction		max. 200	148
E 1	OI _{3TGH-1c} ecological index of the thermal building envelope (respectively OI ₃ of the total mass of the building)		200	148
Sum			max. 1000	693



4 Conclusions from the building evaluation with the ENERBUILD-Tool

a) Generally

The building first was planned as a regular building according to legal efforts. After internal discussion it was decided to build a “healthy and sustainable” building according to the directives of Nachhaltig Bauen in der Gemeinde.

A process of optimizing the material input, chemical input and reducing energy demand was initiated. As a result of the process the energy demand could be halved and the input of indoor air pollution could be reduced about 90 %.

b) About the planning process

The beginning wasn't so perfect, because the optimization in the planning phase started rather late, just after the building application. After starting the ecological planning process, the process runs rather well and the project was optimized in many aspects, especially in energy demand and indoor air pollution.

c) About the building itself

The building is mainly made with concrete and glass. So the primary construction is a “standard-construction”)

5 Suggestions for improvement of the ENERBUILD-Tool

- Side sheets for calculation of the Points
- Side sheets for further information about the fulfilling of the criteria
- How can I find the points in B5?
make a table for finding the points for each subcriteria
- D2: error in the formulation of highest quality criteria. It must say

Schallimmissionsmessung am exponiertesten Regelarbeitsplatz $L_{A,nT} < 25 \text{ dB}$ und $L_{C(50-4000),nT} < 45 \text{ dB}$	50
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