



## Demo Factsheet for IEA ES Task 43

*“Storage for renewables and flexibility through standardized use of building mass”, Subtask D*



Picture of Demo building

### Building Name

Hörburger

### Location/Country

Rankweil, Austria

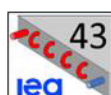
### Submitting contact information

*\*Name, E-mail, Institution*

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## Building information

### Building type

- ☒ **New construction**  
☐ **Renovation/retrofit**  
☐ **Prototype/Test building**

### Year of construction

\*for renovation year of renovation

2020

### Usage category

\*e.g. residential, office, tertiary etc.

production hall, office

### Total conditioned floor area [m<sup>2</sup>]

\*total area conditioned with heat and/or cold

2.300 m<sup>2</sup>

### Total energy consumption [kWh/m<sup>2</sup>a] and supply temperatures [°C]

\*Electricity refers to the energy supply systems. If possible, exclude household electricity.

|                    |                                                   |                    |             |
|--------------------|---------------------------------------------------|--------------------|-------------|
| <b>Heating</b>     | 28,1 kWh/m <sup>2</sup> a                         | <b>temperature</b> | 35/30 °C    |
| <b>Hot water</b>   | Klicken oder tippen Sie hier, um Text einzugeben. | <b>temperature</b> | Flow/Return |
| <b>Cooling</b>     | 7,6 kWh/m <sup>2</sup> a                          | <b>temperature</b> | 16/19 °C    |
| <b>Electricity</b> | Klicken oder tippen Sie hier, um Text einzugeben. |                    |             |

### Energy supply systems

\*please list all supply systems (e.g. heat pumps, boilers, the electricity grid), including power ratings for locally deployed technologies

- Heat:** 2 x 42 kW water/water heat pumps  
waste heat from air compressors  
**Cold:** passive cooling with ground water  
**Electricity:** grid, 31 kWp PV

### Installed energy storage systems

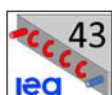
\* please list all energy storage options besides activated building mass, including their capacities (e.g. hot water buffer, battery etc.)

- Heat:** hot water buffer  
**Cold:** cold water buffer  
**Electricity:** Klicken oder tippen Sie hier, um Text einzugeben.

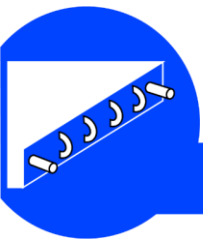
### Other conditioning systems besides TABs [multiple choice]

- ☒ **Radiators**  
☐ **Conventional floor heating**  
☐ **Other:**  
☒ **Ventilation**  
☐ **Wall heating**

Klicken oder tippen Sie hier, um Text einzugeben.



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## Dimension of total installed thermal activated building mass [ $\text{m}^2/\text{m}^3$ ]

\*use one or both of the metrics depending on which information is available

**Area [ $\text{m}^2$ ]:**

1.620  $\text{m}^2$

**Volume [ $\text{m}^3$ ]:**

Klicken oder tippen Sie hier, um Text einzugeben.

## Location of thermal activated building mass integration

- ☒ Floor
- ☐ Wall
- ☐ Ceiling
- ☐ Other:

Klicken oder tippen Sie hier, um Text einzugeben.

## Material(s) used

concrete (25 cm thick slab)

## Functional role of thermal activated building mass [multiple choice]

- ☒ Heating
- ☒ Cooling
- ☐ Energy storage

## Is the thermal activated building mass used for flexibility services?

- ☒ No. Because of:
  - ☐ No need for additional storage
  - ☒ Lack of awareness or lack of information on the topic
  - ☐ Lack of social acceptance
  - ☐ Technical feasibility
  - ☒ Financial feasibility
  - ☐ Other reasons

- ☐ Yes. Please describe the use case below:

Klicken oder tippen Sie hier, um Text einzugeben.

## Optional additional information

\*e.g. further details about the building and its function, feedback from users, residents or owners, project homepage, studies or other information that is not covered by the factsheet