### IEA EBC Annex 62 Ventilative Cooling

# **International Ventilative Cooling Application Database**



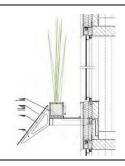
### AT\_Wien\_Aspern IQ

Image 01: Exterior view ©TQB Zertifikat Image 02: Exterior view PV as shading system ©e7

Image 03:
Shading system out of PV and plants
©HdZ+ Endbericht







#### **Building Specifications**

Address	Seestadtstraße 27, 1220 Wien
<b>Building Category</b>	Office
Year of Construction	2012
Special Qualities	Plus Energy Building
Location	48° northern latitude, 16° eastern longitude 315 m above sea level
Climate	CfB – moderate climate

### Vent. Cooling Site Design Elements (Solar Site Design and Wind Exposure Design, Evaporative Effects from Plants or Water)

To improve the micro climate, flat roofs with greening were realised.

### Vent. Cooling Architectural Design Elements (Form, Morphology, Envelope, Construction&Material)

Envelope: Automatic outer shadings with daylight channelling and perforated to gain daylight and enable free view. Additionally fixed outer shadings out of PV elements. Plants in front of the windows are used as "curtain-wall". Construction & Material: The building is made out of ferroconcrete. The ceilings are left exposed to make use of the thermal mass.

#### Vent. Cooling Technical Components (Airflow Guiding Components, Airflow Enhancing Components, Passive Cooling Components)

Airflow Guiding Components: The air-inlets are close to the facade, air will be sucked in at the door into the building core Freecooling with groundwater (also during nights). Additionally for peak heat temperature precooling of air.

### **Actuators, Sensors and Control Strategies**

As the cooling is mainly achieved by freecooling and precooling the mechanical ventilation, there is no cooling strategy with natural ventilation.

#### Building Energy Systems (Heating, Ventilation, Cooling, Electricity)

Heating: Ground Water and District Heating

Cooling: Ground Water, District Heating for Absorption cooling system

## **IEA EBC Annex 62 Ventilative Cooling**

### **Building Ownership and Building Facility Management Structures**

Building Owner: WWFF Business & Servicecenter GmbH

Facility Management: Siemens

Architecture and Building technology: ATP Architekten Ingenieure

### Aknowledgements

Project of Haus der Zukunft Plus

Datasheet Source:

Institute of Building Research & Innovation

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