
Supplementary information

Proposal for the assessment of thermal indoor climate based on the thermal acceptability, in addition to the thermal (dis)satisfied

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Table S1. Principles for the temperature exceedance calculation.

- Mezzanine
- Glass percentage facade: 80 [%]
- U-value glazing: 0.94 [W/(m².K)]
- G- value glazing: 0.26 [-]
- G- value glazing + sun protection: 0.14 [-] (sun blind slats in the cavity)
- LT value glazing: 0.60 [-]
- Person occupancy: 1 person at 80 [W/10 m²]
- Installed lighting power: 10 [W/m²]
- Heat emission equipment: 10 [W/m²]
- Plenum space function: negative pressure
- Infiltration rate: 0.3 [m³/(h.m³)]
- Mechanical ventilation rate: 2.7 [m³/(h.m³)]
- Minimum inlet temperature: 16.0 [°C]
- Fan and duct heating: 1.5 [°C]
- Inlet temperature: outside temperature
- Working hours: 09:00 to 17:00
- Minimum indoor temperature: 22.0 [°C] during working hours
- Minimum indoor temperature: 15.0 [°C] after working hours
- Blinds operated during working hours: if $Q_{\text{transmitted sun}} \geq 120$ [W/m²]
- No sun blind after working hours
- Additional ventilation through facade (during working hours): if $T_i > 24^{\circ}\text{C}$, $T_u > 16^{\circ}\text{C}$, $(T_i - T_u) > 1$ K
- Additional ventilation through facade (after working hours): none

- Net opening glass outer side of the facade: 0.2 [m²/m]
- Net opening glass inner side of the facade: 2.08[m²/m]
- Type of opening outer side of the facade: flaps (opening angle: 15 degrees)
- Type of opening inner side of the facade: tilt window (opening angle: 15 degrees)
- Surface gap under door: 0.005 [m²]
- Night/weekend ventilation: none
- Inner walls: Metal Stud
- Floor construction (top-bottom):
 - o project carpet
 - o 36 mm plasterboard (incl. water tubes)
 - o 50 mm screed
 - o 200 mm concrete floor
 - o Plenum space
 - o 50 mm mineral wool
 - o 18 mm plasterboard (incl. water tubes)