NEW BUILDINGS

ANNEX II

Integrated indoor well-being

Assessment and verification: *The applicant shall provide documentation according to the EN 15251 standard as follow:*

<table>
<tr><th colspan="2">THERMAL ENVIRONMENT</th></tr>
<tr><td>Mechanical heated and cooled buildings</td><td>Buildings without mechanical cooling systems</td></tr>
<tr><td>Category II of Table A.1
Indicator: PMV and/or PPD</td><td rowspan="2">Category II of Figure A.1
Indicator: Operative temperature Θ_0</td></tr>
<tr><td>Category II of Table A.2
Indicator: Operative temperature</td></tr>
</table>

HUMIDIFICATION AND DEHUMIDIFICATION
Category II of Table B.6 Indicator: relative humidity

<table>
<tr><th colspan="3">INDOOR AIR QUALITY AND VENTILATION RATES</th></tr>
<tr><td>Non-residential buildings</td><td colspan="2">Residential buildings</td></tr>
<tr><td>Category II of Table B.2
Indicator: total ventilation rate q_{tot}</td><td>Ventilation during occupied hours</td><td>Ventilation during non-occupied hours</td></tr>
<tr><td>Category II of Table B.3
Indicators:
• ventilation rate for person
• ventilation rate for m^2 floor area</td><td rowspan="2">Category II of Table B.5
Indicators:
• air change rate for m^2 floor area
• air change rate for hour</td><td rowspan="2">§B.4</td></tr>
<tr><td>Category II of Table B.4
Indicator: outdoor CO_2 concentration</td></tr>
</table>

LIGHTING
Values of Table D.1 Indicators: • Maintained luminance at working areas • UGR • Ra

NOISE
Values of Table E.1 Indicator: sound pressure level

Design indoor parameters shall be assessed in compliance with §7 and § 8 of EN 15251.

For New Buildings test method refers to simulated parameters on the average room of the building. The average room is here defined as a room of each different zone of the building characterized by a typical usage profile by occupants and subjected to outdoor climate conditions representative of the site.

References

- EN 15251, Indoor environmental input parameters for design and assessment of energy performance of buildings addressing indoor air quality, thermal environment, lighting and acoustics.
- ISO 7726, *Ergonomics of the thermal environment — Instruments for measuring physical quantities.*
- EN 12599; Ventilation for buildings – Test procedures and measuring methods for handing over installed ventilation and air conditioning systems.
- EN 12464-1; Light and lighting – Lighting of work places – Part 1: Indoor work places.
- EN 13032-2; Light and lighting – Measurements and presentation of photometric data of lamps and luminaries. Presentation of data for indoor and outdoor work places.
- ASHRAE Standard 62 – Ventilation for acceptable indoor air quality. Analysis and recommendations.