IAQmatters

Yes to a better Indoor Air Quality

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EUROVENT RECOMMENDED REQUIREMENTS TO ENSURE INDOOR AIR QUALITY IN NON-RESIDENTIAL BUILDINGS

IN TERMS OF CO_2 CONCENTRATION AND MINIMUM OUTDOOR AIRFLOW PER PERSON

Not least the pandemic has shown that good Indoor Air Quality (IAQ) is crucial for people's health, comfort and productivity – and that it should be considered a basic need.

With this document, Eurovent provides a set of hands-on minimum IAQ requirements, which can easily be:

- Applied by HVAC stakeholders and policymakers when drafting harmonised legislation
- Utilised when monitoring IAQ values in buildings

TO ACHIEVE A HEALTHY IAQ, THE FOLLOWING CO_2 LEVELS SHALL BE CONSIDERED*:

Level	CO_2 concentration
Recommended	< 900 ppm
Acceptable**	900-1200 ppm
Poor	> 1200 ppm

** The 'Acceptable' level should be considered as a minimum for human occupancy

TO ACHIEVE THE PROPOSED CO_2 LEVELS, THE FOLLOWING MINIMUM OUTDOOR AIRFLOW RATES PER PERSON CAN BE CONSIDERED IN THE MAJORITY OF CASES:

Level	Min. outdoor airflow per person
Recommended	> 36 m³/h (10 l/s)
Acceptable	25-36 m³/h (7-10 l/s)
Poor	< 25 m³/h (7 l/s)

Detailed information about designing airflow rates for ventilation systems for all cases can be found in EN-16798-1

TO ACHIEVE THIS AND TO MEET ENERGY EFFICIENCY REQUIREMENTS, MECHANICAL VENTILATION SHALL MEET THE FOLLOWING REQUIREMENTS:

1. Contain an energy recovery system that meets the requirements of the latest EU Ecodesign Regulation for Ventilation Units
2. Enable demand-controlled ventilation depending on the actual air quality within the building based on CO_2 level measurements
3. Include supply air filtration of at least ePM1 50% (either by one or more stages of filtration)

* Extensive guidelines for implementation of IAQ requirements in legislation can be found in the joint guidance Eurovent, REHVA and Nordic Ventilation Group titled 'Proposed modifications and guidelines for implementation of Article 11a 'Indoor environmental quality' in EPDB draft'.

DOWNLOAD THE GUIDANCE HERE:

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