



# **Eurovent EN13779:2007**

## Achieving Optimal Indoor Air Quality (IAQ)

Technical Bulletin 3: 2015



# What is Eurovent EN13779:2007

Eurovent Certification is the official European association that certifies the performance of air conditioning and refrigeration products according to European and international standards.

## Filter Recommendation for Achieving Optimal IAQ (Indoor Air Quality)

EN13779:2007 is the nearest thing to an IAQ standard, with built-in recommendations for outdoor air and indoor air which can include particulate and molecular filtration.

EN13779:2007 is a new standard for ventilation and room conditioning systems in non-residential buildings. It is now an accepted legal standard across all European Union countries.

The standard sets out to achieve a comfortable and healthy IAQ in all seasons of the year - at acceptable installation and operating cost - taking outside air quality into consideration. It represents a major step forward in recognising the importance of external air quality in achieving better indoor air quality... and a healthier environment.

## Categories of Outdoor Air According to EN13779:2007

According to the EN13779:2007 standard, outdoor air may be described in three categories, from ODA 1 (pure air which may be only temporarily dusty) to ODA 3 (very high concentrations of gaseous pollutants and particulate matter).

Category	Description	Location Type
ODI 1	Pure air which may be only temporarily dusty e.g. pollen	Rural areas or sparsely populated villages
ODI 2	Outdoor air with high concentrations of particulate matter and/or gaseous pollutants	Larger town with industry and polluted city centre
ODI 3	Outdoor air with very high concentrations of particulate matter and/or gaseous pollutants.	Larger town with industry and polluted city centre

The application of the classifications above will depend on the criteria that are being used, since there is currently no uniform global guideline that covers all pollutants. However, it is clear that the potential impact of mixtures of pollutants, rather than just individual pollutants, should be considered in determining the ODA classification. As a reference point, the following approach is suggested:

- ODA 1: applies where the WHO (1999) guidelines or any national air quality standards or regulations are fulfilled.
- ODA 2: applies where pollutant concentrations exceed the WHO (1999) or any national air quality standards or regulations for outdoor air by a factor up to 1.5.

- ODA 3: applies where pollutant concentrations exceed the WHO (1999) or any national air quality standards or regulations for outdoor air by a factor greater than 1.5.

Typical gaseous pollutants to be considered in the evaluation of ODA are carbon monoxide, carbon dioxide, sulphur dioxide, oxides of nitrogen and volatile organic compounds (VOCs). The indoor impact of such outdoor pollutants will depend on how reactive they are.

Particulate matter refers to the total amount of solid or liquid particles in the air, from visible dust to submicron particles. Most outdoor air guidelines refer to PM10 (particulate matter with an aerodynamic diameter up to 10 µm) but there is growing acceptance that, for the purpose of health protection, greater emphasis should be placed on smaller particles.

## Categories of Indoor Air According to EN13779:2007



Category	Description	CO2 Level ppm	Outside Air m <sup>3</sup> /h per Person
IDA 1	High Indoor Air Quality	< 400	>54
IDA 2	Medium Indoor Air Quality	400 - 600	36-54
IDA 3	Moderate indoor Air Quality	600 - 1000	22-36
IDA 4	Low indoor Air Quality	>1000	<22

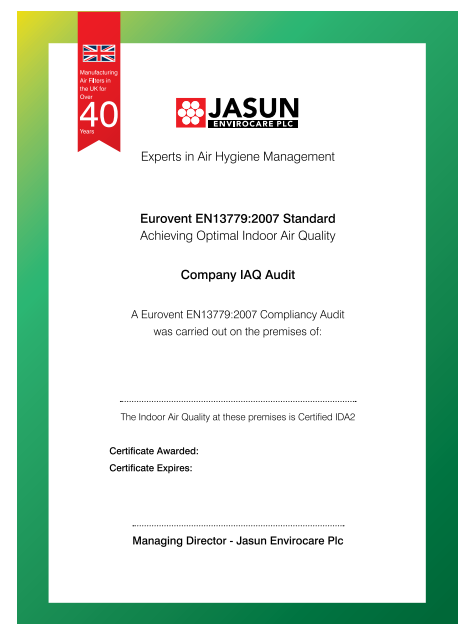
## Filter Recommendations According to EN13779:2007

When the pollution level of the outdoor air is classified, EN13779:2007 recommends the right air filtration solution for the preferred indoor air quality, as summarised in the table below (definition of filter classes according to EN779:2012).

Outdoor Air Quality	IDA 1	IDA 2	IDA 3	IDA 3
<b>ODA 3</b> (Pure Air)	F9	F8	F7	F5
<b>ODA 2</b> (Dusty)	F7 + F9	F6 + F8	F5 + F7	F5 + F6
<b>ODA 3</b> (Very high concentrations of dust and/or gases)	F7 + F9 + GF Gas Phase e.g. carbon	F7 + F8 + GF Gas Phase e.g. carbon	F5 + F7	F5 + F6

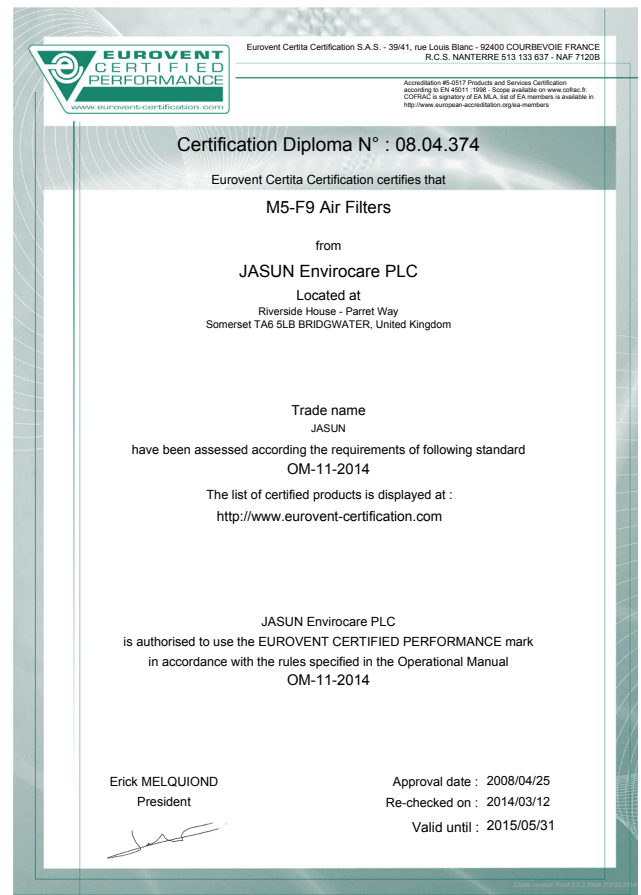
## EN13779:2007 Audits

Jasun Envirocare Plc can carry out EN13779:2007 audits. We issue a certificate of compliance on successful completion. For information about our Eurovent EN13779:2007 IAQ audits, please contact us on: 01278 452277



## What does our Eurovent Certificate mean for our customers?

- The Eurovent Certificate that Jasun Envirocare Plc has been awarded proves that our air filters deliver on promised performance.
- Customers should be requesting a Eurovent Certificate (as shown here) as proof of compliance or should be asking for sight of an EN779:2012 product certificate.
- Our M5 to F9 filters are compliant with the new Eurovent standard and deliver better IAQ (Indoor Air Quality) throughout filter service.
- Participants in the Eurovent Scheme must undergo stringent testing criteria, resulting in guaranteed filter performance.



## Our Commitment

We recognise the need for sustainable clean air solutions that contribute to improved air quality at beneficial life cycle costs. Our ongoing commitment is to develop and manufacture air filters that are at the forefront of energy cost/filtration efficiency performance ratios.



We are accredited by BSI to ISO 9001, ISO 14001 and to OHSAS 18001.

### Production

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