

# INDOOR AIR QUALITY

Indoor Air Quality (IAQ) refers to the air quality in buildings and especially as it relates to the health and comfort of the occupants.

According to the U.S. Environmental Protection Agency, we spend on average 90% of our life indoors, this means that poor IAQ levels can be a significant health risk for the occupants. Poor IAQ levels can cause health problems such as coughing, eye irritation, headache and allergic reactions and it's well known that contaminated air is one of the most common causes of Sick Building Syndrome.

It is scientifically proven that the air inside buildings can be chemically more polluted than the air outside. Poor indoor air quality can result from biological contamination such as: bacteria, moulds, pollen and viruses that may breed in air ducts, humidifiers and drain pans.

## How to combat poor indoor air quality:

- **Ensure the correct filter grade is being used.** Maintaining the correct level of filtration is essential to ensure good air quality. Below is a chart showing the different filter grades required in relation to different outdoor air conditions.

Outdoor Air Quality	Indoor Air Quality			
	IDA1 (High)	IDA 2 (Medium)	IDA 3 (Moderate)	IDA 4 (Low)
ODA 1 (pure air)	F9	F8	F7	M5
ODA 2 (dust)	F7 + F9	M6 + F8	M5 + F7	M5 + M6
ODA 3 (very high dust or gases)	F7+Carbon+F9	F7+Carbon+F9	M5 + F7	M5 + M6

Source: Eurovent Review, April 2007

- **Maintain filtration systems.** As well as reducing airflow in ventilation systems, blocked or contaminated filters create a basis for bacteria and fungi. Over time this will grow through and be released the other side of the filter. In this way they can get into the ductwork and also the ventilated rooms. To prevent this occurring, ensure there is a scheduled filter maintenance programme.
- **Provide an adequate supply of filtered air to all areas.** This should include a proportion of fresh air from an external air supply.
- **Clean and disinfect ductwork.** Accumulated dust and dirt on the inside of the ductwork can create a basis for bacteria and fungi. These will then be released into the ventilated rooms. Ductwork should be inspected regularly and cleaned as required.
- **Clean and disinfect AHUs.** Ensure AHUs, coils, filter & fan chamber and grilles are cleaned and disinfected at least once a year.



**FILTREX**

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