

What is EN13779?

EN13779 is a European Standard for ventilation and air conditioning in non-residential buildings. The standard aids ventilation designers to address factors inside and outside of a building that effect the environmental conditions for the occupants. EN13779 is a close to an indoor air quality standard that exists and includes guidelines on air change rates and filtration standards.

EN13779 classifies Outdoor Air Quality (ODA) into three categories by determining particulate and pollutant gas levels in the air.

Particulate matter concentrations are measured by PM10 (particulate matter up to 10 micron), and PM2.5 (particulate matter up to 2.5 micron), both of which have an effect on human respiratory systems.

Gaseous pollutants include carbon monoxide, carbon dioxide, sulphur dioxide, nitrogen oxides and volatile organic compounds.

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

Indoor air quality (IDA) is classified by levels of carbon dioxide present in the air and fresh air levels being introduced per person.

Category	Description	CO2 level ppm	Outside Air m ³ /h/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

Outdoor Air Quality	IDA 1 (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 concentrations of dust and/or gases)	F7 + GF* + F9	F7 + GF* + F9	M5 + F7	M5 + M6

Following the classification ODA and required IDA filtration selections can be selected to achieve a healthier indoor air quality for occupants.

* GF= Gas Phase Filters