

- Targeted adsorption of organic acids
- Safe, light, clean and easy to handle. Low resistance to airflow.
- Ozone efficiency and Camfil rating.
- Includes Camfil's exclusive RAD carbon.
- High efficiency control of nitrogen dioxide.
- EN779:2012 F7 rating and ASHRAE 52.2 MERV 15 rating.

A combination or "2 in 1" filter providing both particle and molecular filtration in a compact filter configuration. CityCarb is a group of solutions to address the problem of atmospheric chemical burden and odours in building. It is especially useful when; due to lack of space, molecular filtration must be combined with particle filtration in a single device.

The filters are constructed from 2 distinct layers of pleated media that are formed into panels and held in a robust plastic frame. They are designed to fit in place of existing 300mm (12") deep filters within an air-handling unit. The filters are readily mounted in standard ventilation system frames without the need for modification, so upgrading bag or compact filters is a simple process. Each filter has a jointless gasket on the header frame to ensure an effective leak-free installation.

Rapid Adsorption Dynamics carbon

The CityCarb CH model uses a targeted media to specifically control organic acids. The carbon operates with a Rapid Adsorption Dynamics (RAD) mechanism and includes a reactive impregnate that is specifically designed to enhance performance against low molecular weight organic acids, that may be present in certain cultural heritage buildings.

The CityCarb CH is specifically intended for use in the recirculation air systems of museums, art galleries, libraries and archives. Its specific function is to control the internal source pollutants; formic (methanoic) and acetic (ethanoic) acids which are generated through the degradation of cellulose based materials (paper and wood). If left untreated these organic acids can cause irreversible damage to other cultural heritage collection artefacts. It is recommended to combine with CityCarb I installed in the make-up air system to provide control of external source pollutants, ozone, nitrogen dioxide, sulphur dioxide and VOCs.

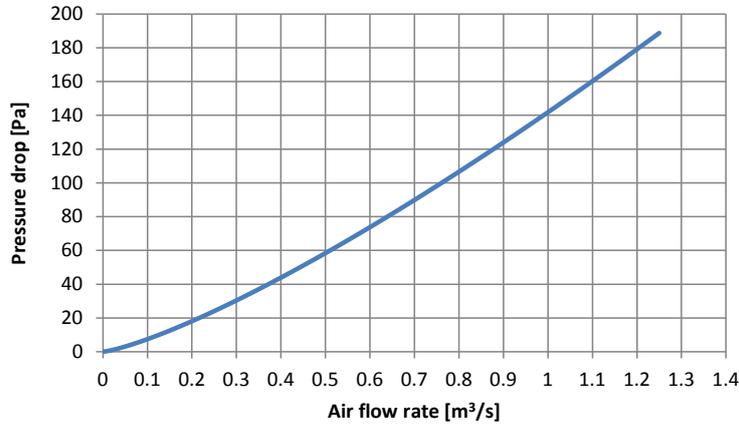
About outgassing

It is a logical requirement that the performance of molecular filters is not compromised by outgassing from the materials used in the filter construction. On a weight basis, the principal raw materials used in filter construction include; the filter media, plastic frames, adhesives and sealants. Camfil have selected and tested the materials used in all CityCarb filters (E, I and CH versions) to have extremely low outgassing characteristics. The total outgassing level is less than 4 micrograms/cm².

Outgassing is determined by heating to 50°C and measuring the concentrations of the most prevalent gases released from the material. *Note, the outgassing test is conducted at approximately double the normal operational temperature for air filters.*

Many competitive products may use more economic raw materials that will have significantly higher outgassing values.

Pressure drop



Performance Data

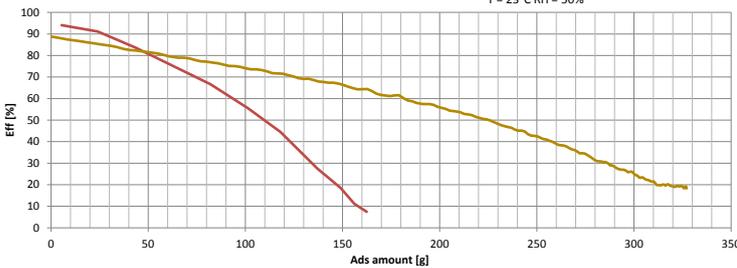
Width	Height	Depth	Filter class EN 779:2012 / MERV ¹	Air flow m³/hr	Pressure drop Pa	Media area m²	Weight kg	Energy class
592	592	292	F7 / MERV 15	3400	130	8	9.6	E
592	490	292	F7 / MERV 15	2800	130	6.6	7	E
592	287	292	F7 / MERV 15	1500	130	3.8	5	E

Data Notes:

¹ MERV, Minimum Efficiency Reporting Value per ASHRAE Filter Testing Standard 52.2

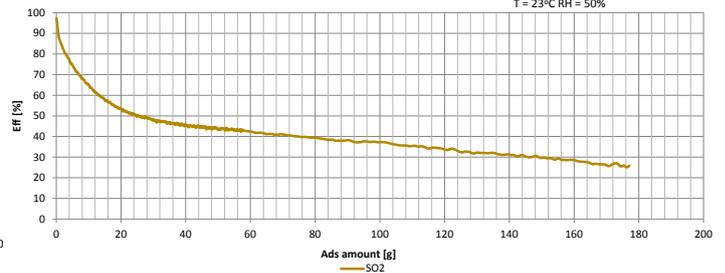
Capacity test - Efficiency vs adsorbed amount

CityCarb-CH 592*592*292
9 ppm Acetic acid and 13.5 ppm Formic acid
Air flow: 3400 m³/h
T = 23°C RH = 50%



Capacity test - Efficiency vs Adsorbed amount

CityCarb-CH 592*592*292
3 ppm Sulfur dioxide
Air flow: 3400 m³/h
T = 23°C RH = 50%



Capacity test - Efficiency vs Adsorbed amount

CityCarb-CH 592*592*292
330 ppb NO₂ and 158 ppb ozone
Air flow: 3400 m³/h
T = 23°C RH = 50%

