



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 problems of atmospheric chemical burden and odors in buildings. It is especially useful when; due to lack of space, molecular filtration must be combined with particle filtration in a single stage of filtration.

The filters are constructed from two distinct layers of pleated media that are formed into panels and held in a robust injection molded 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

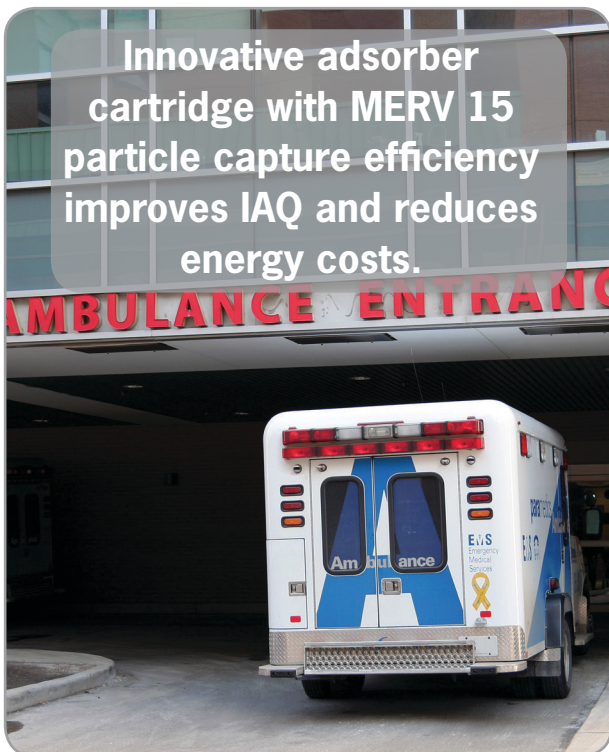
The CityCarb I model uses broad spectrum carbon and will adsorb more than 99.5% of the thousands of different molecules that might be expected in the indoor environment of a city building. The broad spectrum carbon operates with Rapid Adsorption Dynamics and is specifically designed to be highly efficient against the multiple contaminants present on an individual basis in low or moderate concentrations in city buildings. CityCarb I filters provide the highest levels of indoor air quality (IAQ) that can be expected in a commercial building.

The CityCarb I filter may be used in both fresh air make-up and recirculation air systems. In the make-up air system it will provide efficient control of external pollutants including ozone and nitrogen dioxide that are classified as irritants and have reduced exposure limits which is recommended by the World Health Organization (WHO). In the recirculation air system, the filter will remove internal source volatile organic compounds (VOCs) that arise from multiple sources including construction and finish materials, cleaning agents, photocopiers, and humans.

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 selected and tested the materials used in all CityCarb filters to ensure 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.



Performance Data

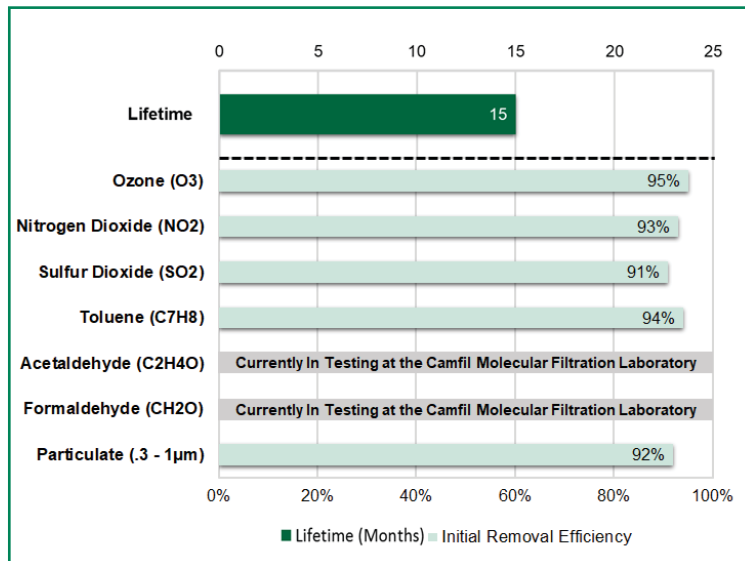
Model Designator Part Number	Rated Airflow (cfm)	Nominal Size (inches)	Media Area (ft ²)	MERV / Ozone Ratings	Initial Resistance (inches, w.g.)	Weight (lbs)
CIZP-7I-242412-4V-21-00 M20000036	2000	24x24x12	80.4	MERV 15 MERV 14A Oz 9 (>90% Ozone removal efficiency)	0.52	21
CIZP-7I-202412-4V-21-00 M20000051	1650	20x24x12	67.0			15
CIZP-7I-202012-4V-21-00 M20000081	1388	20x20x12	50.3			13
CIZP-7I-122412-4V-21-00 M20000052	1000	12x24x12	40.2			11

Product Notes:

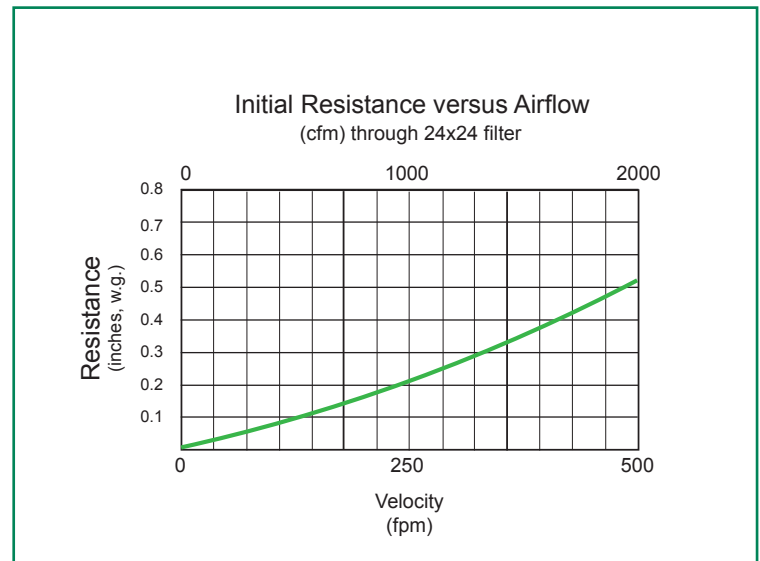
- MERV, Minimum Efficiency Reporting Value per ASHRAE Filter Testing Standard 52.2.
- Maximum operating temperature 104° F (40° C).
- 70% RH maximum for optimum adsorption. Schedule air filters for change when initial pressure drop has doubled.
- Final pressure drop should not exceed 1.50" w.g.

For detailed specifications or drawing, please consult your local Camfil Distributor or Representative or download from the Molecular Toolbox located in the **Segments Tab** of **CamTab File Archive** at www.camfil.us. Camfil has a policy of uninterrupted research, development and product improvement. We reserve the right to change designs and specifications without notice. For assistance specific to this product please contact Camfil's Washington, NC facility at Sales-WA@camfil.com or telephone at (877) 658-6588.

Lifetime and Initial Removal Efficiencies*



Pressure Drop



Applicable Industries

Sector	Definition	Industry Examples
Comfort Air	Comfort Air refers to a general application where there is a desire to improve the air quality within a space, especially as it relates to the comfort (odor control) of building occupants.	Athletics, Education, Hospitality, Odor Complaint, Office Building, Retail
Indoor Air Quality	Indoor Air Quality (IAQ) refers to a specific application where there is a need to meet air quality standards within a space, especially as it relates to the health and comfort of building occupants.	Airport, Casino, Healthcare, Industrial Office Space
Advanced IAQ	Advanced IAQ refers to a specific application where the primary concern is the impact air quality has on the equipment and/or processes within a space, while still considering the health and comfort of the building occupants.	Cultural Heritage, Food & Beverage, Laboratory Space

* This lifetime estimate is based on typical operating conditions in the appropriate application. The actual lifetime for your application can vary drastically depending on concentration of gases, flow rate, temperature, and/or relative humidity. Camfil's unique molecular filtration testing laboratory runs tests according to the following standards: ASHRAE 145.1, ASHRAE 145.2, ISO 10121-1 and ISO 10121-2. The initial removal efficiencies referenced in the chart above were determined by challenging full size (24" x 24") filters with realistic gas concentrations in 2,000 CFM of air at 50% RH and 72F. More information on this unique testing facility can be provided.