

HEPA Air Filtration Systems

Recommendations

"HEPA or high efficiency particulate air filters have similar performance to those used to keep the air clean in hospital operating rooms and industrial clean rooms. These filters are very effective at trapping microscopic particles as small as bacteria and viruses. HEPA filters are effective at capturing greater than 99 percent of the airborne microbes in the filtered air. Filtered, recirculated air provides higher cabin humidity levels and lower particulate levels than 100% outside air systems."



Source: [IATA](#)



"The quality of air provided during a flight is very high. This is due to frequent exchange of air (the entire air supply is typically exchanged every 3-5 minutes) and the High Efficiency Particulate Air (HEPA) filters which are used on board of most modern aircraft. Airlines and airport operators will work together to ensure that passengers are not kept on board an aircraft without proper ventilation for longer than 30 minutes."

Source: [EASA](#)

"Use portable, industrial-grade HEPA filter units capable of filtration rates in the range of 300–800 ft³/min. to augment removal of respirable particles as needed."



Source: [CDC](#)

The New York Times



"... in its guidance for health-care personnel, the CDC states that air from rooms where COVID-19 patients are being isolated "should be exhausted directly to the outside or be filtered through a high-efficiency particulate air (HEPA) filter directly before recirculation," and advises health-care workers to "consider the addition of portable solutions (e.g., portable HEPA filtration units) to augment air quality in areas when permanent air-handling systems are not a feasible option."

Source: [The New York Times](#)



Truck



Bus



Off-Highway



Special Vehicles

"In buildings where windows do not open and the ventilation system functions in a closed circuit, High-efficiency particulate air (HEPA) filtration should be used for the recycled air. Other options may include, after expert engineering advice: placing temporary HEPA filters over the vents and exhausts in the rooms housing COVID-19 patients or using a portable HEPA air filtration system placed in close proximity to where the patient was located."



Source: [ecdc](#)



"Choose a portable air cleaner that is intended for the room size in which it will be used and be sure it meets at least one of the following criteria: it is designated as High-Efficiency Particulate Air (HEPA), it is CADR rated, or the manufacturer states that the device will remove most particles in the size range below 1 um."

Source: [EPA](#)

"HEPA filters (High Efficiency Particulate Air) are mandatory in critical environments such as hospitals and healthcare facilities and can be also recommended for medium risk environments (high density of people) like airports, schools or other public spaces."



Source: [EUROVENT](#)

Application Area	High Risk Environment	Medium Risk Environment	Low Risk Environment
Examples	Laboratories, Hospitals, Isolation Rooms, Quarantine Spaces	Other medical facilities, airports, schools, public areas	Small offices, businesses, personal space
Type of filter required	HEPA + Relevant Containment Equipment	HEPA (recommended) or EPA filters	EPA (recommended) or Fine Dust Filter
Recommendation	Special care needs to be given upon replacement of filters. Treat them as biohazards! (wear protective masks, suits and gloves)	Special care needs to be given upon replacement of filters. Treat them as biohazards! (wear protective masks, suits and gloves)	Do not wash filters. Replace regularly
Filter Class as per EN1822:2009 ISO16890	Minimum H14	Minimum H13	ePM1 80% or higher

Source: [EUROVENT](#)