Typical Contaminants

Filter Class, Typical Contaminants and Applications

Group	Class	Typical Contaminants	Typical Applications
Coarse ISO 16890	50%	Leaves, insects, textile fibers	Low grade applications (e.g. For protection against insects and leaves)
	60%	Human hair, sand, water droplets	Low grade applications (e.g. for protection against sand and water droplets)
	70%	Beach sand, plant spores	Compact room air conditioners
	80%	Pollen, fog	Compact room air conditioners, prefilter for ePM2.5 and ePM1 filters
ePM10 ISO 16890	50%	Spores, sedimenting particles, cement	Inlet filter for very low requirement rooms, prefilter for ePM2.5 and ePM1 filters
	70%	Larger bacteria & germs, PM10 dust	Inlet filter for low requirements rooms, prefilter for ePM1 and E10 filters
ePM2.5 ISO 16890	50%	Soot, lung damaging dust (PM2.5)	Inlet filter for low requirements rooms, prefilter for ePM1 and E10 filters
ePM1 ISO 16890	60%	PM1 dust, cement dust (fine fraction)	Recirculated air in AC plants, prefilter for E11 and E12 filters
	85%	Oil smoke, bacteria	Prefilter for H13 and H14 filters and gas adsorption filters
E EPA Filters EN 1822	E10	Germs, tobacco smoke	Final filter for air-conditioned rooms of very high standard (e.g. hospitals)
	E11	Viruses on carrier particles, carbon black	Final filter for cleanrooms ISO class 7 – 8
	E12	Oil fumes, sea salt nuclei	Final filter for cleanrooms ISO class 5 – 6
H HEPA Filters EN 1822	H13	Radioactive particles	Final filter for ISO class 5 - 6 cleanrooms, military shelters and food, electronics & pharma industries. Exhaust filter in nuclear applications.
	H14	Viruses	Final filter for cleanrooms ISO class 4 – 5
U ULPA Filters EN 1822	U15	All air suspended particulate matter	Final filter for cleanrooms ISO class 3 – 4
	U16	All air suspended particulate matter	Final filter for cleanrooms ISO class 2 – 3
	U17	All air suspended particulate matter	Final filter for cleanrooms ISO class 1
A Gas Filters	Physisorption	VOCs, solvent vapors, kitchen odors	Airports, office buildings, hotels, hospitals, improvement of IAQ
	Gas Filters	Acidic Gases, SO_2, SO_4, NO_2, NOx	Computer and control rooms, microelectronics, museums, libraries
	Chemisorption	Amines, NH_3, NH_4, NMP, HMDS	Recirculated air in microelectronics industry