

### Differentiation of filter types

Filters are split in different classes according to their capacity (gas filters) or their efficiency (particle filters). The class of a particle filter indicates how efficient the filter is in filtering out particles: class 1: 80%, class 2: 94%, class 3: 99,95%.

Filter type	Filter class	Protection against	Maximum permissible concentration of toxic substance
Gas filter		Gases and vapours Capacity:	50 times the OEL with half masks / 2000 times the OEL with full face masks, but maximal:
	1	Small	0,1 vol. % (1000 ppm)
	2	Medium	0,5 vol. % (5000 ppm)
	3	Large	1,0 vol. % (10000 ppm)
Particle filter		Particle Efficiency (separation ability):	
	1	Small	4 times the OEL with half masks / 5 times the OEL with full face masks
	2	Medium	12 times the OEL with half masks / 16 times the OEL with full face masks
	3	Large	48 times the OEL with half masks / 1000 times the OEL with full face masks
Combined filter		Gases, vapours, particles	
	1-P2	Appropriate	Appropriate combined levels
	2-P2	combined gas	
	1-P3	and particulate	
2-P3	filters		

Values are the Nominal Protection Factors, taken from the CEN Report 529.

Additional national and local regulations must be followed.

**According to EN143:2006/A1 particle filters have to be marked regarding reusability:**  
**NR** (Non Reusable) if the filter is limited to single shift only, **R** (Reusable) if the filter is re-usable

**Warning:** Never use any kind of filtering respiratory protection device: in oxygen deficient atmosphere (see local legislation for further guidelines e.g. UK less than 19 vol. % O<sub>2</sub>), in poorly ventilated areas or confined spaces, such as tanks, small rooms, tunnels, or vessels, in atmospheres where the concentrations of the toxic contaminants are unknown or are immediately dangerous to life or health (IDLH), when the concentration of a contaminant is higher than the maximum permissible concentration and / or the filter class capacity.