



## EUROPEAN STANDARDS OF THE PROTECTIONS OF RESPIRATORY TRACTS

- They specify the minimal characteristics concerning materials, cleaning and disinfecting, interchangeability of the components, resistances, leak of contaminating, flammability, ergonomics, visual field...

For the filters, they define the performances according to the contaminating and give classes and colours codes for the different contaminating families.

- [EN136](#) : minimal requirements of overall masks
- [EN 140](#) : minimal requirements of half-masks and quarter-masks
- [EN 141](#) : gas filters and compound filters
- [EN 149](#) : filtering half-masks against particles
- [EN 405](#) : filtering half-masks fitted with valves...

### **EN136 standard : minimal requirements for overall masks**

It determines the minimal requirements of the overall masks for respiratory protection equipment. It contains tests in laboratory and practical performance tests to check the conformity with the requirements below :

- resistance to temperature,
- resistance to impacts,
- resistance to flame,
- resistance to thermal radiation,
- resistance to traction,
- resistance to cleansers and disinfectants.

Furthermore, the visual inspection must concern the marking and the manufacturer information's guide.

### **EN140 : minimal requirements for half-masks and quarter-masks**

It specifies the minimal characteristics required for half-masks and quarter-masks when intended to be used with respiratory protection equipment. It contains tests in laboratory and practical performance tests to check the conformity with specifications below :

- resistance to impacts,
- resistance to cleansers and disinfectants,
- resistance to temperature,
- resistance to flame,
- respiratory resistance.

#### **EN141 : gas filters and compound filters**

It concerns gas filters and compound filters as component of respiratory protection equipment without assistance. It includes laboratory tests to check the conformity with the following requirements :

- resistance to impacts, temperature, humidity, corrosive atmospheres,
- mechanical resistance,
- respiratory resistance.

#### **EN143 : filters against particles**

It refers to filters against particles as component of the respiratory protection equipment without assistance.

It contains laboratory tests to check the conformity with the following specifications :

- resistance to impacts, temperature, humidity, corrosive atmospheres,
- mechanical resistance,
- respiratory resistance.

#### **EN149 : filtering half-masks against particles**

It specifies the minimal characteristics required for filtering half-masks used as respiratory protection equipment against particles. It contains laboratory tests and practical performance tests to check the conformity with the requirements below :

- resistance to impacts,
- resistance to cleansers and disinfectants,
- resistance to flame,
- respiratory resistance,

#### **EN405 : filtering half-masks fitted with valves...**

It specifies performance requirements, test methods and marking requirements applicable for filtering half-masks fitted with valves and gas filters or compound filters, used as respiratory protection equipment.

It contains laboratory tests and practical performance tests to check the conformity with the specifications below :

- resistance to handling and wear,
- resistance to impacts,
- respiratory resistance,
- resistance to flame.