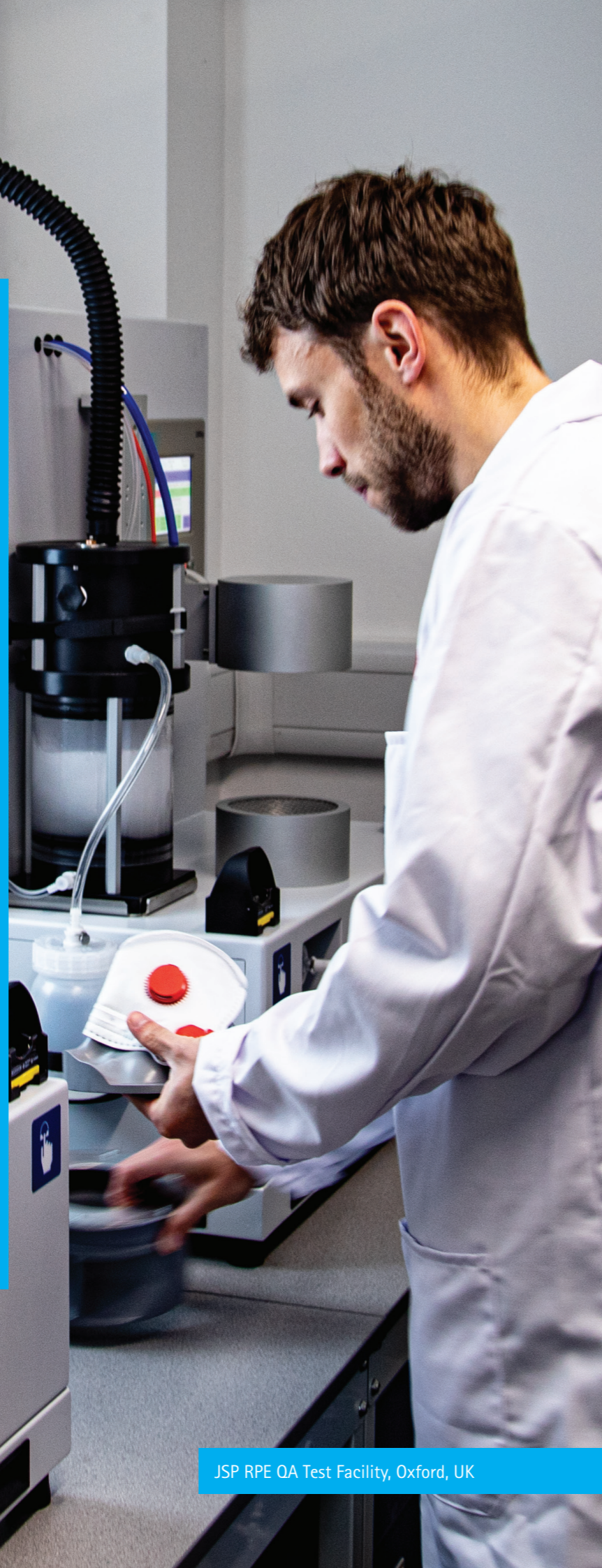


# STANDARDS EXPLAINED

Personal Protective Equipment (PPE) must be certified under the PPE Regulation (Regulation (EU) 2016/425), which is most often achieved through conformity with one or more European (EN) standards. These standards set out specifications and assessment requirements, ensuring that new PPE products are fit for purpose and safe to use.

Recent changes brought in with the new PPE Regulation mean that products must be recertified every five years, or sooner if a relevant standard is updated, ensuring that equipment remains state-of-the-art. RPE products are covered by a number of different EN standards, introductions to each of the standards relevant to products in this guide are given on the following pages.



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## RESPIRATORY PROTECTION STANDARDS

**EN 136 – Respiratory protective devices. Full face masks. Requirements, testing, marking.**

This standard covers full face masks, with assessments including field of vision, flammability, and strength of connections, and tests including breathing resistance, carbon dioxide content, and inward leakage. The respirator must be tested both on laboratory equipment and on real people performing work simulation tests in a laboratory environment. Specifications and requirements are also given for cleaning & disinfecting, marking, packaging, and user information.

Additionally, this standard requires assessment of the visor or eyepiece for mechanical strength, distortion, misting and leak tightness, which is assessed before and after mechanical strength testing. If the respirator includes a speech diaphragm it must be tested for strength and function.

**EN 136 classifies full face masks as:**  
Class 1: Light Duty,  
Class 2: General Use,  
Class 3: Special Use

**EN 140 – Respiratory protective devices. Half masks and quarter masks. Requirements, testing, marking.**

Half and quarter masks are covered in this standard, which includes assessments of field of vision, head harness, and strength of connections, and tests covering breathing resistance, carbon dioxide content and inward leakage. The respirator must be tested both on laboratory equipment and on real people performing work simulation tests in a laboratory environment. Demountable parts and replaceable components are also assessed to ensure the mask can be used and maintained correctly. Requirements for markings and user information are also given in the standard.

**EN 143 – Respiratory protective devices. Particle filters. Requirements, testing, marking.**

This standard sets out the requirements for particulate filters for use with respiratory protective devices and includes review and assessment of materials, connections, markings, and user information. Filters are tested for breathing resistance, clogging, and penetration. Filter penetration testing is carried out before and after clogging with dolomite dust to ensure the product continues to perform at the marked level.

**Filters are classed as below:**  
**P1** = Low filter performance (80% efficiency)  
**P2** = Medium filter performance (94% efficiency)  
**P3** = High filter performance (99.5% efficiency)

**EN 149 – Respiratory protective devices. Filtering half masks to protect against particles. Requirements, testing, marking.**

This standard covers particle filtering half masks, commonly called disposable dust masks, and sets out requirements for materials, field of vision, performance, markings, and user information. The respirator must be tested both on laboratory equipment and on real people performing work simulation tests in a laboratory environment. Testing covers breathing resistance, penetration, clogging, and carbon dioxide of the air, as well as strength of connections and valves.

**Masks are divided into three classes:**  
**FFP1** – Low filter performance (80% efficiency),  
**FFP2** – Medium filter performance (94% efficiency),  
**FFP3** – High filter performance (99% efficiency)

**EN 529, Respiratory protective devices – Recommendations for selection, use, care and maintenance – Guidance document**

This standard provides guidance on best practice for establishing and implementing a suitable respiratory protective equipment programme. The guidance is published to set minimum guidelines for the proper selection, use, care, and maintenance of respiratory protective devices, covering risk assessments, adequacy and suitability, and protection factors.

**Two types of protection factor are outlined in the standard:**

**NPF:** Nominal Protection Factor, refers to the level of respiratory protection the device provides under laboratory conditions.  
**APF:** Assigned Protection Factor, refers to the workplace level of respiratory protection the device provides, and is used when selecting adequate RPE.

