

# FFP respiratory masks according to EN 149

EN 149:2001+A1:2009 (DIN EN 149:2009-08)

*Respiratory protective masks - Filtering half masks to protect against particles - Requirements, testing, marking*

## Objective

- FFP respiratory masks are designed to protect their wearers from aerosols, particles and droplets.
- The protective effect of these masks is therefore tested and assessed, for example, by testing the filter performance, breathing resistance and leakage using test persons.



## The test is particularly well-suited for

- Particle filtering half masks: FFP1, FFP2, FFP3
- With or without valve
- Non-reusable (NR) or reusable (R)
- Dolomite dust test for masks with resistance to clogging (expected to be available from July 2022)

## Description

- Particle-filtering half masks belong to personal protective equipment (PPE) and fall under risk category III according to Regulation (EU) 2016/425, Annex I.
- Classification into three particle filter classes: FFP1, FFP2, FFP3, the classification or rating is based on breathing resistance, filter performance and total leakage.
- The EN 149 sets extensive requirements for the testing of FFP masks to ensure the protective effect
- By means of an EU declaration of conformity, the manufacturer declares on his own responsibility that
  - an EU type examination in accordance with Regulation (EU) 2016/425, Annex V (Module B), has been issued for his PPE by a notified body,
  - annually supervised product tests are carried out at irregular intervals in conjunction with an internal production control (Annex VII module C2), and
  - its PPE complies with the relevant harmonization legislation and EN 149.

# Requirements for FFP masks according to EN 149

## The tests:

- Visual inspection verifies labeling, manufacturer's instructions, and packaging
- Pretreatment procedures condition the masks for testing:
  - Temperature conditioning (heat and cold)
  - Use conditioning
  - Mechanical strength
  - Flow-through conditioning
- The following tests are then performed:
  - Breathing resistance
  - Passage of the filter medium with sodium chloride and paraffin oil
  - Inward leakage and practical performance by test persons incl. assessment of e.g. skin compatibility, headgear
  - Flammability of the mask
  - Carbon dioxide content of inhaled air
  - Exhalation valve traction
  - Inhalation through exposure to dolomite dust (testing is expected to be available from July 2022)



## Your advantages

- Testing and certification of your FFP respiratory masks
- Ensure compliance with the requirements of Regulation (EU) 2016/425 and EN 149
- Consumer safety
- Proof of function



## Requirements for test samples

### General:

Tests are partly carried out in new condition and after pretreatment

### Material quantity:

Depending on the mask type, between 50 and 75 samples from at least 3 different packaging units

### Test duration (after sample receipt):

Full testing: 5-6 weeks

Certification incl. testing: 12 weeks