

The 4-Step Method

1. Identify the Hazards

Application*		Performance level	Important information
	Rust, Metal Particles, Filler	FFP1	
Sanding,	Concrete, Stone	FFP1 FFP2	FFP3 When Silica is present
	Cement, Wood, Steel	FFP2	
Cutting, Drilling	Paints/Varnish/Anti-rust coating	FFP2	FFP3 When Chromates are present
	Steel, Stainless Steel	FFP3	
	Anti-Fouling Varnish	FFP3	Speciality respirator may be required
Low temp. oil spray		FFP2	
Welding	Mild Steel, Zinc (Autogen, MIG/MIK)	FFP2	3M™ 9928 or 3M™ 9925 for Ozone protection
	Stainless Steel (Electrodes)	FFP2	9928 or 9925 for Ozone protection
	Soldering	FFP2	
Work with Asbestos	Small amounts infrequent exposure	FFP3	
Work with Glass and Mineral fibres		FFP2	
Waste Sorting		FFP2	Speciality Respirator may be preferred May need gas and vapour respirator
Spraying	Paint spray	FFP2	May need gas & vapour respirator
	Pesticides (water based)	FFP2	
Utility maintenance (e.g. filter change)		FFP3	
Allergies	Pollen, Animal dander	FFP1	
	Grain dust	FFP2	
Contact with:	Mold/Fungus	FFP2	FFP3 With Tuberculosis
	Bacteria	FFP2	
	Diesel exhaust/Smoke	FFP2	

* Warning: This guide is only an outline. It should not be used as the only means for selecting a respirator. Details regarding performance and limitations are set out on the respirator package and user instructions. Before using any of these respirators, the wearer must read and understand the user instructions for each product. Specific country legislation must be observed. Please note that the applications shown highlight some of the hazards which may be considered. Selection of the most appropriate respiratory protective equipment (RPE) will depend on the particular situation and should be made only by a competent person knowledgeable of the actual working conditions and the limitations of RPE.

2. Assess the Risk

	EN 149:2001+A1:2009 FFP1 Respirators	EN 149:2001+A1:2009 FFP2 Respirators	EN 149:2001+A1:2009 FFP3 Respirators	EN 149:2001+A1:2009 Welding Respirators
Nominal Protection Factor (NPF)	NPF 4	NPF 12	NPF 50	NPF 10
Typical Applications	Low levels of fine dust particles (up to 4 x Threshold Limit Value (TLV)) and oil or water based mist typically found during hand sanding, drilling and cutting	Moderate levels of fine dust particles (up to 12 x TLV) and oil or water based mist typically found during plastering, cement, sanding and wood dust	Higher levels of fine dust particles (up to 50 x TLV) and oil or water based mist typically found when handling hazardous powders found in the pharmaceutical industry or work with biological agents and fibres	Moderate levels of fine dust particles (up to 10 x TLV), oil and water based mist, metal fume and ozone (10 x TLV) and organic vapours below TLV typically found in welding and soldering

Nominal Protection Factor (NPF): The theoretical protection level of a respirator based on laboratory measured performance data.



3. Select the Right Respirator

Once you have selected the protection factor you require, you can then consider whether you need a cup-shaped respirator, or a foldable respirator, whether it has buckled straps and whether it is valved or not.



3M™ Cup-Shaped Respirators

- Convex shape, nose clip and twin strap design
- Easy to fit
- Durable, collapse resistant shell



3M™ Buckle Strap Respirators

- Robust and durable design provides multishift capability and secure feel
- Adjustable braided headbands
- Soft inner face-seal improves comfort



3M™ Foldable Respirators

- Ultra soft, flexible and comfortable fit resulting from the multiple panel design
- Comfort Series - Flat Fold only: Individually packed, foldable design prevents contamination before use and allows easy storage



3M™ Cool Flow™ Valve

- Effective removal of heat build-up provides a cooler and more comfortable wear
- Provides longer continuous wear time
- Reduces risk of fogging of spectacles and eyewear

4. Train in Fitting and Use

Training Offered by 3M

Correct use and appropriate maintenance of personal protective equipment (PPE) from 3M makes a major contribution towards ensuring that it provides effective protection. Our experienced sales and technical teams will help you make the most of your products. In compact

training units, they will show you and your employees how to recognize potential hazards, suggest what measures to take and help explain how to choose the appropriate protective equipment for each particular situation

EN 149:2001+A1:2009 Standard

3M™ Disposable Respirators meet the requirements of European Standard EN 149:2001 + A1:2009, filtering facepiece respirators for use against solid and non-volatile liquid particles only. Products are classified by filtering efficiency and maximum total inward leakage performance (FFP1, FFP2 and FFP3), also by usability and clogging resistance.

Performance tests in this standard include:

- filter penetration and extended exposure (loading) test - evaluates the filtration performance when new and over time
- breathing resistance - evaluates the ease of breathing (inhalation and exhalation) through the respirator
- total inward leakage - evaluates the filter penetration, valve leakage (if fitted) and importantly the face seal leakage of the respirator when worn by a panel of different people whilst conducting simulated work exercises
- clogging resistance - evaluates the ability of the respirator to continue to function effectively and provide respiratory protection in very high dust environments

Reusable products are also subjected to a cleaning cycle (specified by the manufacturer) and 24 hour storage to confirm the product performance is not affected by re-use. Clogging resistance testing is a mandatory requirement for reusable products, but is optional for single shift use only (non reusable) products. A full copy of EN 149:2001+A1:2009 can be purchased from your national standards body.

Marking designations:

R = Reusable

NR = Non reusable (single shift use only)

D = Meets the clogging resistance requirements