



4000 Series Gas and Vapour Respirators

Data Sheet



Main features

The 3M 4000 Series is a range of respirators which use innovative technology to provide integral construction gas and vapour respirators. The 3M 4000 Series uses twin inhalation valves to reduce breathing resistance, together with bonded carbon filters, which do not require granule containers. This is complemented with a parabolic valve which further reduces breathing resistance whilst preventing heat build-up. The single piece integral construction also avoids operator assembly errors and allows a respirator to be designated to a specific area, making a respirator programme easier to manage. An optional overspray guard is also available to prolong the life of the particulate filter when using the 3M 4251 or 3M 4255 respirators for paint spraying.

Applications

| MODEL | HAZARD | INDUSTRY |
|------------------------------------|---|---|
| 4251/4255 (FFA1P2D/ FFA2P3D) | Organic Vapours and Particulates | - Anywhere conventional paints are used (subject to usage conditions). - Vehicle manufacture - Plant equipment manufacture - Shoe treatment and tanneries - Domestic appliance manufacture - Aircraft manufacture and refurbishment - Boat building - Machinery manufacture - Chemical manufacture and handling - Ink and dye manufacture and usage - Adhesive manufacture and laboratories - Paint and varnish manufacture - Manufacture and use of resins |
| 4277 (FFABE1 P3D) | Organic Vapours, Inorganic Gases, Acid Gases and Particulates | As 4251 but also: - Electrolytic processes - Acid cleaning - Metal pickling - Metal etching |
| 4279 (FFABEK1 P3D) | Organic Vapours, Inorganic and Acid Gases plus Ammonia and Particulates | As 4277 but also: - Manufacture and maintenance of refrigeration equipment - Agrochemicals |

Approvals

- The 3M 4000 series meet the performance requirements of the European Standard EN405:2002 for valved filtering half-mask respirators for gases, or gases and particulate combinations.
- The products are CE marked.

Materials

The following materials are used in the production of the product:

- Face piece - Thermoplastic elastomer
- Head harness - Polypropylene/cotton braided elastic
- Plastic components - Polypropylene
- Gas/Vapour filter - Activated carbon
- Particulate filter - Polypropylene
- Exhale valve - Silicone rubber
- Inhale valve - Natural rubber

Product weight: 300g max.

Standards

The products have been tested to European Standard EN405:2002 and have met the relevant requirements of the categories shown below.

The main performance tests in this standard are:

- Face Fit
- Flammability
- Breathing Resistance
- Filter Performance
- Paraffin Oil Test

Within the criteria specified in the standard

- The 3M 4251 (FFA1P2D) provides protection against organic vapours, (boiling above 65°C) up to 10 times the Workplace Exposure Limit (WEL) or 1000 parts per million (ppm), whichever is lower. 10 times WEL for particulates. (Waterbased and non-volatile liquid aerosols).

- The 3M 4255 (FFA2P3D) provides protection against organic vapours, (boiling above 65°C) up to 10 times WEL or 5000 ppm, whichever is lower. 20 times WEL for particulates. (Waterbased and non-volatile liquid aerosols).

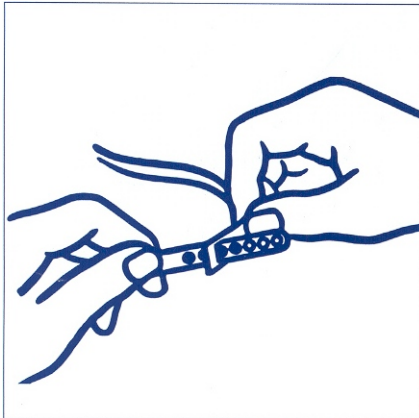
- The 3M 4277 (FFABE1P3D) provides protection against organic vapours, (boiling above 65°C), inorganic and acid gases, up to 10 times WEL or 1000 ppm, whichever is lower. 20 times WEL for particulates. (Waterbased and non-volatile liquid aerosols).

- The 3M 4279 (FFABEK1P3D) provides protection against organic vapours (boiling above 65°), inorganic and acid gases and ammonia, up to 10 times WEL or 1000 ppm, whichever is lower. 20 times WEL for particulates. (Waterbased and non-volatile liquid aerosols).

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Fitting Instructions

Fitting instructions must be followed each time the respirator is worn.



1. Assemble/adjust head cradle by feeding the perforated strip through the buckle and pressing down on the stud at the required length. Repeat for second strip.



2. Place the respirator over the face, fitting it comfortably on bridge of the nose, then pull the head harness over the crown of the head. If necessary remove the respirator and readjust the head cradle to a comfortable fit and repeat step 2.



3. Take a bottom strap in each hand, place them at the back of the neck and hook the straps together.



4. Tighten the top strap first by pulling on the ends to achieve a comfortable and secure fit. Tighten bottom straps in a similar manner. (Strap tension may be decreased by pushing out on back side of buckles.)



5. Perform a positive pressure fit check. Place palm of hand over exhalation valve cover and exhale gently. If the facepiece bulges slightly and no air leaks between the face and the facepiece are detected, a proper fit has been achieved. If air leakage is detected, reposition the respirator on the face and/or readjust the tension of the elastic strap and the head harness to eliminate the leakage. Repeat the above facefit check. If you cannot achieve a proper fit, do not enter the contaminated area. See your supervisor.

Use Limitations

1. This respirator does not supply oxygen. Do not use in atmospheres containing less than 19.5 % oxygen.
2. Do not use when concentrations of contaminants are immediately hazardous to life and health, are unknown, or have poor warning properties (i.e. smell or taste).
3. Do not use when the organic vapour has a boiling point of less than 65°C.
4. Do not abuse or misuse this respirator.
5. Do not use with beards or other facial hair that prevents direct contact between the face and the edge of the respirator.
6. Do not use for concentrations of contaminants which generate high heats of reaction.
7. Do not use for escape purposes.
8. Leave the contaminated area immediately if:
 - a) the respirator becomes damaged
 - b) breathing becomes difficult
 - c) dizziness or distress occur
 - d) you taste or smell contaminants, or an irritation occurs

For help with selecting the most appropriate forms of PPE and relevant Health & Safety legislation, or for more detailed product information, please contact the 3M Health & Safety Helpline on: 0870 60 800 60. For callers within the Republic of Ireland: 1 800 320 500.

Cleaning and Maintenance

If the 3M 4000 Series is to be used for more than one shift, it should be cleaned at the end of each shift and stored in its resealable packaging, away from the contaminated area.

To clean the 3M 4000 Series the face seal area should be wiped with a cloth moistened with warm soapy water, (the water temperature should be below 40°C) and dried at room temperature.

The product MUST NOT be immersed in water during cleaning. Alternatively, the 3M 105 Face Seal Cleaner may be used.



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