

# Technical Datasheet

## 3M<sup>™</sup> 8000 Series Particulate Respirators

## **Description**

The 3M 8000 Series Particulate Respirators provide effective respiratory protection for use in industries where workers will be exposed to dust particles and/or non-volatile liquid particles.

- Tested and CE Approved to EN 149:2001+A1:2009.
- Traditional convex shape, with nose clip and twin strap design.
- Durable, collapse resistant inner shell.
- Reliable, effective protection against fine particles.
- 3M<sup>TM</sup> Advanced Electret Filter Material gives effective filtration with low breathing resistance for consistent high quality performance.
- 3M<sup>TM</sup> Cool Flow<sup>TM</sup> exhalation valve offers improved comfort in hot humid environments and/or where work is hard and physical\*.
- Coloured headbands for easy identification: yellow for FFP1 and blue for FFP2.

#### **Materials**

The following materials are used in the 8000 Series Particulate Respirators:

| • Straps                 | 8810, 8812, 8822 – Polyisoprene<br>8710E, 8710S – Thermoplastic Elastromer |
|--------------------------|--|
| • Staples                | 8810, 8812, 8822 – Steel<br>8710E and 8710S – no staples                   |
| Nose Foam                | Polyurethane   |
| Nose Clip                | 8710E, 8810 – Aluminium<br>8710S, 8812, 8822 – Steel                       |
| • Filter                 | Polyester / Polypropylene  |
| <ul><li>Valve*</li></ul> | Polypropylene  |
| Valve diaphragm*         | Polyisoprene   |

These products do not contain components made from natural rubber latex.

Maximum mass of products:

- Unvalved (8710E, 8710S & 8810) = 8g
- Valved (8812 & 8822) = 13g

#### **Standards**

These products meet the requirements of the European Standard EN149:2001 + A1:2009, filtering facepiece respirators for use against particles. They should be used to protect the wearer from solid and non-volatile liquid particles only.

Performance tests in this standard include filter penetration; extended exposure (loading) test; flammability; breathing resistance and total inward leakage. A full copy of EN 149:2001+A1:2009 can be purchased from your national standards body.

#### **Designations:**

NR = Non reusable (single shift use only)

D = Meets the clogging resistance requirements

### **Approvals**

These products meet the requirements of the European Community Directive 89/686/EEC (Personal Protective Equipment Directive) and are thus CE marked.

Certification under Article 10, EC Type-Examination, has been issued for these products by INSPEC International Limited, 56 Leslie Hough Way, Salford, Greater Manchester M6 6AJ, UK (Notified Body number 0194).

Certification under Article 11, EC quality control, has been issued by BSI Product Services (Notified Body number 0086).

## **Applications**

These respirators are intended for use in concentrations of solid and non-volatile liquid particles up to the following limits:

| Model         | EN 149+A1<br>Classification | Exhalation<br>Valve | Maximum Use<br>Concentration |
|---------------|-----------------------------|---------------------|------------------------------|
| 8710E / 8710S | FFP1 NR D                   | Unvalved            | 4 x WEL**                    |
| 8812          | FFP1 NR D                   | Valved              | 4 x WEL                      |
| 8810          | FFP2 NR D                   | Unvalved            | 10 x WEL                     |
| 8822          | FFP2 NR D                   | Valved              | 10 x WEL                     |

<sup>\*\*</sup> Workplace Exposure Limit

Respiratory protection is only effective if it is correctly selected, fitted and worn throughout the time when the wearer is exposed to hazards.

## **Storage and Transportation**

The  $3M^{TM}$  8000 Series Particulate Respirators have a shelf life of 5 years. End of shelf life is marked on the product packaging. Before initial use, always check that the product is within the stated shelf life (use by date). Product should be stored in clean, dry conditions within the temperature range:  $-20^{\circ}\text{C}$  to  $+25^{\circ}\text{C}$  with a maximum relative humidity of <80%. When storing or transporting this product use original packaging provided.

## Disposal

Contaminated products should be disposed of in accordance with national regulations.

## **Fitting Instructions** 8710E and 8710S only

#### See Figure 1.

- 1. and 2. Pre-stretch along entire length of each strap by pulling at 3cm intervals between both hands.
- 3. Cup respirator in one hand with nosepiece at fingertips, allow headbands to hang freely below hand.
- 4. Hold respirator under chin, with nosepiece up.
- 5. Locate the upper strap across the crown of the head and the lower strap below the ears.
- 6. Straps must not be twisted.
- 7. Using both hands, mould noseclip to the shape of the lower part of the nose to ensure a close fit and good seal. Pinching the noseclip using only one hand may result in less effective respirator performance.
- 8. The seal of the respirator to the face should be fit-checked before entering the contaminated area.

#### Figure 1

















## 8810, 8812 and 8822 only

#### See Figure 2.

- 1. Cup respirator in one hand with nosepiece at fingertips, allow headbands to hang freely below hand.
- 2. Hold respirator under chin, with nosepiece up.
- 3. Locate the upper strap across the crown of the head and the lower strap below the ears.
- 4. Straps must not be twisted.
- 5. Using both hands, mould noseclip to the shape of the lower part of the nose to ensure a close fit and good seal. Pinching the noseclip using only one hand may result in less effective respirator performance.

## 3M Health & Safety Helpline

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6. The seal of the respirator to the face should be fit-checked before entering the contaminated area.

#### Figure 2



#### Fit Check

- 1. Cover the front of the respirator with both hands being careful not to disturb its fit.
- 2. (a) UNVALVED respirator EXHALE sharply; (b) VALVED respirator - INHALE sharply.
- 3. If air leaks around the nose, re-adjust the noseclip to eliminate leakage. Repeat the above fit check.
- 4. If air leaks at the respirator edges, work the straps back along the sides of the head to eliminate leakage. Repeat the above fit check.

If you CANNOT achieve a proper fit DO NOT enter the hazardous area. See your supervisor.

Users should be fit tested in accordance with national requirements. For information regarding fit testing procedures, please contact 3M.

## Warnings and Use Limitations

- Always be sure that the complete product is:
  - Suitable for the application; - Fitted correctly;
  - Worn during all periods of exposure; - Replaced when necessary
- Proper selection, training, use and appropriate maintenance are essential in order for the product to help protect the wearer from certain airborne contaminants.
- Failure to follow all instructions on the use of these respiratory protection products and/or failure to properly wear the complete product during all periods of exposure may adversely affect the wearer's health, lead to severe or life threatening illness or permanent disability.
- For suitability and proper use follow local regulations, refer to all information supplied or contact a safety professional/3M representative.
- Before use, the wearer must be trained in use of the complete product in accordance with applicable Health and Safety standards/guidance.
- These products do not protect against gases/vapours.
- Do not use in atmospheres containing less than 19.5% oxygen. (3M definition. Individual countries may apply their own limits on oxygen deficiency. Seek advice if in doubt).
- Do not use for respiratory protection against atmospheric contaminants/concentrations which are unknown or immediately dangerous to life and health (IDLH).
- 🔼 Do not use with beards or other facial hair that may inhibit contact between the face and the product thus preventing a good seal.
- Leave the contaminated area immediately if: a) Breathing becomes difficult.
  - b) Dizziness or other distress occurs
- Discard and replace the respirator if it becomes damaged, breathing resistance becomes excessive or at the end of the shift.
- Never alter, modify or repair this device.
- In case of intended use in explosive atmospheres, contact 3M.