



Technical Datasheet

3M™ 8710, 8210, 8812 and 8822 Particulate Respirators

Description

The 3M™ 8710, 8210, 8812 and 8822 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 certified to AS/NZS 1716:2003.
- Traditional convex shape, with nose clip and twin strap design.
- Durable, collapse resistant inner shell.
- Reliable, effective protection against fine particles.
- 3M™ Advanced Electret Filter Material gives effective filtration with low breathing resistance for consistent high quality performance.
- 3M™ Cool Flow™ exhalation valve offers improved comfort in hot humid environments and/or where work is hard and physical*.

Materials

The following materials are used in the production of the 8710, 8210, 8812 and 8822 Particulate Respirators:

• Straps	8812, 8822 – Polyisoprene 8710 and 8210 – Thermoplastic Elastomer
• Staples	8812, 8822 – Steel 8710 and 8210 – no staples
• Nose Foam	Polyester
• Nose Clip	8210 – Aluminium 8710, 8812, 8822 – Steel
• Filter	Polyester / Polypropylene
• Valve*	Polypropylene
• Valve diaphragm*	Polyisoprene

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

Maximum mass of products:

- Unvalved (8710 & 8210) = 8g
- Valved (8812 & 8822) = 13g

Standards

These products meet the requirements of Australian New Zealand Standard AS/NZS 1716:2003, Respiratory protective devices. They should be used to protect the wearer from solid and non-volatile liquid particles only.

Particulate Filter Respirators are classified by filtering efficiency and maximum total inward leakage performance (P1 & P2), also by inhalation resistance.

P1 filters are intended for use against mechanically generated particulates such as those generated from sanding, grinding, drilling, sweeping etc.

P2 filters are intended for use against both mechanically and thermally generated particulates e.g. welding, brazing etc. P2 filters may also help reduce breathing in pathogenic biological airborne particulates such as influenza virus.

Approvals

These respirators have been produced to comply with the requirements of the Australian / New Zealand Standard AS/NZS 1716:2003 under an agreed production certification scheme operated during manufacture in accordance with the SAI Global StandardsMark programme.

Applications

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

Model	AS/NZS 1716 Classification	Exhalation Valve	Protection Factor x ES
8710	P1	Unvalved	up to 10x
8812	P1	Valved	up to 10x
8210	P2	Unvalved	up to 10x
8822	P2	Valved	up to 10x

ES = Exposure Standard

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

* 8812 and 8822 models only

Selection Guide

		FFP1	FFP2	FFP3	Organic Vapour	Acid Gas	Welding
Painting, Varnishing, Spraying, Coating, Mixing	Solvent-Based - brush / roller applied			•	•		
	Solvent-Based - spray applied	Ask 3M					
	Water-Based - brush / roller / spray applied			•	•		
	Wood Preservatives			•	•		
	Powder Coating			•			
Sanding, Stripping, Grinding, Cutting, Drilling	Rust, most Metals, Filler, Concrete, Stone	•					
	Cement, Wood, Steel,		•				
	Paints, Varnish, Anti-rust coating		•				
	Stainless Steel, Anti-fouling varnish			•			
	Resins, Reinforced plastics (carbon / glass fibre)		•	•			
Construction / Maintenance	Scabbling, Shot-creting (concrete dust)	•	•	•			
	Plastering, Rendering, Cement mixing	•	•	•			
	Demolition	•	•				•
	Groundwork, Earth moving, Piling, Underpinning		•	•			
	Spray foam, Loft Insulation		•	•			
Metal working / Foundries	Welding, Soldering		•	•			•
	Electro-plating		•	•		•	
	Finishing, Slotting, Drilling, Riveting, Machining		•	•			
	Oxyacetylene cutting		•	•			
	Molten metal handling, Smelting		•	•		•	
Cleaning / Waste Removal	Disinfection, Cleaning		•	•	•	•	
	Waste removal		•	•	•		
	Asbestos handling			•			
	Asbestos removal	Ask 3M					
Allergens / Biohazards	Pollen, Animal dander	•					
	Mould / Fungus, Bacteria**, Viruses		•	•			
	**Tuberculosis			•			
	Diesel exhaust / Smoke		•				
Agriculture / Forestry	Handling infected animals, Culling		•	•	•		
	Feeding livestock, Cleaning sheds / harvesters	•	•	•			
	Straw chopping, Composting, Harvesting		•	•			
	Pesticides, Insecticides (crop spraying)		•	•	•		
Mining / Quarrying	Tunnelling, Drilling, Grinding, Excavation		•	•			
	Pumping, Dredging, Washing		•	•			
	Cutting, Sawing		•	•			
	Changing Filters		•	•			
Other Industrial Applications	Inks, Dyes, Solvents, Chemicals		•	•	•		
	Powdered Additives / Chemicals		•	•	•		
	Pharmaceuticals		•	•	•		
	Rubber / Plastics processing		•	•	•		
	Oil and Gas Extraction / Processing		•	•	•	•	•
	Pottery, Ceramics			•			
	Wood / Paper Mills		•	•			

This selection guide is only an outline designed to focus on products which may be appropriate for typical applications - it should not be used as the only means of selecting a product. Selection of the most appropriate personal protective equipment (PPE) will depend on the particular situation and should be made only by a competent person knowledgeable of the assessed risks, actual working conditions and limitations of PPE. Details regarding performance and limitations are set out on the product packaging and user information. If in doubt, contact a safety professional or 3M.

For respiratory training and advice please contact your local 3M representative.

Storage and Transportation

The 3M™ 8710, 8210, 8812 and 8822 Particulate Respirators have a shelf life of 3 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°C to + 25°C with a maximum relative humidity of <80%. When storing or transporting this product use original packaging provided.

Disposal

Contaminated products should be disposed as hazardous waste in accordance with local regulations.

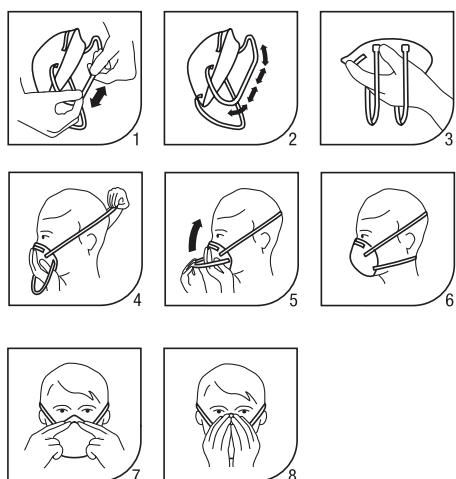
Fitting Instructions

8710 and 8210 only

See Figure 1.

1. and 2. Pre-stretch around 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 on the face should be fit-checked before entering the workplace.

Figure 1

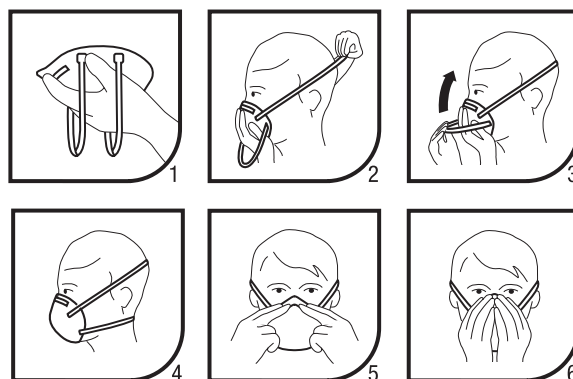


8812 and 8822 only

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.
6. The seal of the respirator on the face should be fit-checked before entering the workplace.

Figure 2



Fit Check

1. Cover the front of the respirator with both hands being careful not to disturb the fit of the respirator.
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 AS/NZS 1715.

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 an occupational hygienist, safety professional or 3M representative on the Tech Assist Helpline 3M Australia 1800 024 464, 3M New Zealand 0800 364 357.
- 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 contain components made from natural rubber latex.
- 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.

Product Range



8710 respirator



8210 respirator



8812 respirator



8822 respirator

Important Notice

3M does not accept liability of any kind, be it direct or consequential (including, but not limited to, loss of profits, business and/or goodwill) arising from reliance upon any information herein provided by 3M. The user is responsible for determining the suitability of the products for their intended use. Nothing in this statement will be deemed to exclude or restrict 3M's liability for death or personal injury arising from its negligence.



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