



Guide to using dust masks in construction work

Using machine tools, can produce fine dusts and particles, gases and vapours. Silica dust, from bricks, can cause lung and airway diseases such as emphysema, bronchitis and silicosis, and may increase cancer risks.

Carbon monoxide, from petrol powered tools, can cause headaches, fatigue and shortness of breath, leading to more serious illnesses after exposure to high concentrations or prolonged exposure.

Personal protective equipment (PPE), such as respirators or dust masks, are used to controls these hazards. However, inappropriate use of PPE reduces its effectiveness and may increase the risks by prolonging exposure.

What sort of mask should I use?

When selecting a dust mask, you should refer to Australian/New Zealand Standard 1715 *Selection, Use and Maintenance of Respiratory Protective Equipment*. Dust masks that are suitable for use in construction work will be marked to indicate that they conform to AS/NZS 1716 *Respiratory Protective Devices* and will contain information on the filter class (P1 or P2).

Class P1 masks are intended for mechanically generated particles, and P2 masks for mechanically or thermally generated particles. Class P1 or P2 dust masks will not protect against chemicals or toxic vapours such as:

- organic vapours from paint fumes, thinners or glue;
- acid fumes; or
- gases such as carbon monoxide from petrol engines.

AS/NZS 1715 provides guidance on selecting a respirator for specific air contaminants.

In some cases, such as toxic atmospheres, the Occupational Safety and Health Regulations 1996 mandate the use of respirators that comply with the Australian Standards.

Masks that are compliant with the Australian Standards are available at specialty safety stores and at some hardware outlets. Check the label to ensure they comply with the appropriate Australian Standard.

What kinds of dust mask are unsuitable?

Dust masks that are unsuitable for construction work are called “nuisance dust masks”. They are lightweight masks with filters intended for extremely coarse, non-toxic particles. These masks are commonly available at retail hardware outlets and are intended for light or intermittent work in the home. Nuisance dust masks give no protection against gases and vapours, and only limited protection against dusts and fibres. They are not suitable for most construction work.

When should I use a mask?

It is important when preparing for work that may generate dust or fumes that you consider forms of control other than dust masks.

If it is practical to use an alternative construction method that does not generate dust or fumes, then that method should be given preference.

Example: It may be possible to pre-cut holes in timber fixtures at the workshop where local exhaust ventilation is available, rather than drilling the holes on-site.

Local exhaust ventilation is an engineering control that draws dust and fumes away from workers.

Example: When working with concrete and masonry cutting saws, preference should be given to tools that include water suppression hoses for the dust, and vacuum hoses to draw away dust and exhaust fumes.

Passive masks with filters, and respiratory equipment, should be used as a last resort when there is no practical alternative.

Do I really need to use both of the straps on the mask?

Yes. It is important that you follow the manufacturer’s instructions when fitting a mask. Even dust masks made to conform to Australian Standards will not provide protection unless worn correctly.

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