



3M™ Gas, Vapour and Particulate Filters have a bayonet-style connection that fits any full-face 3M™ Reusable Masks, and they're designed to optimise your field of vision. Our filters offer lightweight and well-balanced breathing protection for hazardous environments.

This formaldehyde organic vapor cartridge/P100 filter can be used for a variety of applications, including laboratories, wood processing, carpet manufacturing, and primary metals manufacturing. Swept-back design offers enhanced comfort and visibility.

- When properly fitted, helps provide respiratory protection from formaldehyde, certain organic vapors as well as non-oil and oil particulates at concentrations up to 10 times the Permissible Exposure Limit (PEL) with half facepieces or 50 times PEL with full facepieces
- Full facepieces must be quantitatively fit tested to claim assigned protection factor above 10 in negative pressure mode
- OSHA requires that gas-proof goggles be worn with half facepiece respirators when used against formaldehyde
- Not for use in environments that are immediately dangerous to life or health (IDLH)



**THADHANI**<sup>®</sup>  
The Experts in Safety... Since 1947

**J.THADHANI & CO.**

New #12/ Old #28, Stringers Street,  
Chennai - 600001, Tamilnadu, India.




**044 - 4262 5223**



**info@thadhanisafety.com**



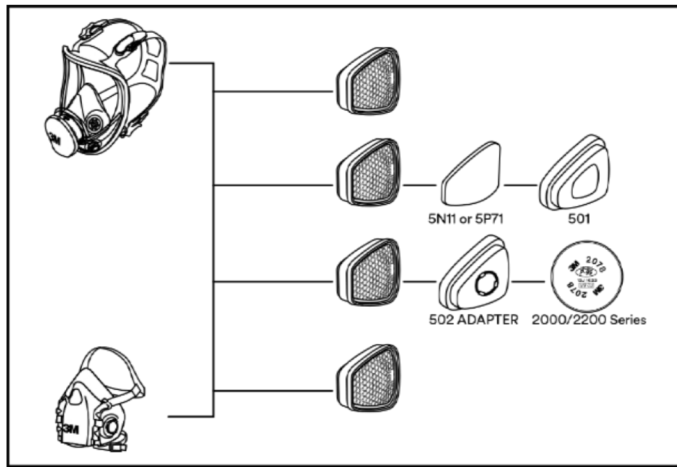
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Accessories	Yes	 <b>THADHANI</b> <sup>®</sup> <i>The Experts in Safety...</i> Since 1947
Brands	3M™	
Cartridge or Filter Type	Gas & Vapor	
Case Quantity	2/pack	
Clip-on Welding Shield	Yes	
Compatible Respirator	3M™ Full Facepieces 6000, 3M™ Full Facepieces 7800 Series, 3M™ Full Facepieces FF-400, 3M™ Half Facepiece Reusable Respirators 6000 Series, 3M™ Half Facepiece Reusable Respirators 6500 Series, 3M™ Half Facepiece Reusable Respirators 7500 Series, 3M™ Scott™ AV-3000 HT Facepieces, 3M™ Scott™ AV-3000 SureSeal Facepieces	
Compatible with 3M™ PAPR Systems	Yes	
Compatible with 3M™ Supplied Air System	Yes	
Compatible with Welding Shield	Yes	
Connection Type	Bayonet	
Cool Flow™ Exhalation Valve	Yes	
Drop-down Feature	Yes	
Enhanced Comfort	Yes	
Enhanced Durability	Yes	
Eye Protection	Yes	
For Use With	Reusable Respirators	
Gas & Vapor Protection Type	Formaldehyde/Organic Vapor	
Hazard Type	Organic Vapor	
Maintenance Free	No	
NIOSH Cartridge or Filter Assigned Color Coding	Black/Olive	
Nuisance Odor Relief (< OSHA PEL)	N/A	
Particulate Protection	Formaldehyde, Organic Vapor	
Product Code	6005	
Product Color	White	
Product Series	6000, 7000, 7500, 7800S, FF-400, Rugged Comfort 6500	
Product Type	Cartridge	
Protection Focus	Formaldehyde, Organic Vapor	
Protection Type	Formaldehyde, Organic Vapor	
Purpose	Cartridges & Filters	
Recommended Application	Carpet Manufacturing, Chemical Compounding, Chemical Dispensing, Chemical Manufacturing, Chemical Processing, Chemical Transfer, Laboratories, Pouring	

	Molten Metal, Primary Metal, Wood Processing
<b>Recommended Industry</b>	Construction, General Manufacturing, Heavy Industrial, Industrial Maintenance, Laboratories, Marine, Mining, Oil & Gas, Pharmaceutical, Transportation
<b>Silicone Face Seal</b>	Yes
<b>Six-point Head Harness</b>	Yes
<b>Spare Parts</b>	Yes
<b>Speaking Diaphragm</b>	Yes
<b>Specifications Met</b>	Formaldehyde, Organic Vapor
<b>eClass 14 Classification Group</b>	40220213
<b>Dimensions and Classifications</b>	
<b>Overall Height (Imperial)</b>	3.4 in
<b>Overall Length (Imperial)</b>	4.2 in



3M™ Multi Gas/Vapor Cartridges shown with 3M™ Full Facepiece 6000 Series and 3M™ Organic Vapor Monitor 3510.



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# How an Organic Vapor Respirator Cartridge Works

3M makes organic vapor respirator cartridges to help reduce user exposure to many different organic vapors.

To achieve this objective, respirator cartridges are filled with a material called activated carbon. Activated carbon is typically made from coal or renewable resources like wood or coconut shells.

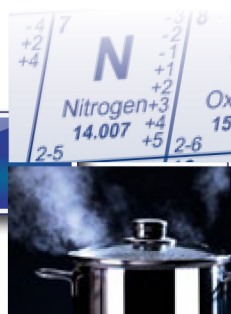
It is "activated" by heating the material in nitrogen or steam at approximate temperatures of 800 – 900 °C. The resulting material has a significant number of micropores that help adsorb various organic vapors. These micropores can be measured and optimized for specific product needs and performance.



Coal or renewable resources, such as coconut shells



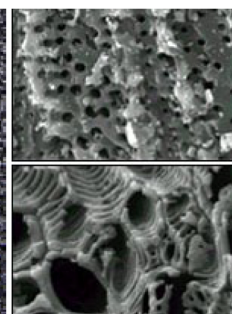
Coal or renewable resources are heated without oxygen



High-temperature steam or nitrogen activation



High-grade activated carbon



Electron micrographs of activated carbon pores

When organic vapors are drawn through an organic vapor cartridge, the air is filtered as vapors condense into the carbon pores. Vapors move through the cartridge from one pore to the next. This occurs more quickly for small volatile vapors with lower boiling points (e.g., acetone). Some migration of organic vapors can even occur during storage, so care must be taken before reusing the cartridge. The effective service life is the time until vapors begin to exit the cartridge.

Unlike particle filters, service life is not indicated by change in breathing resistance. Instead, cartridges must be changed according to local regulations; end-of-service-life indicator; taste, smell, or irritation from the contaminant; or according to 3M™ Service Life Software calculation, whichever comes first.

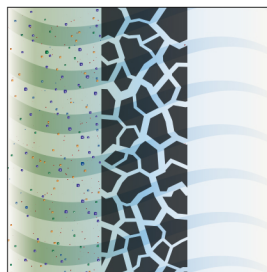
Activated carbon by itself cannot adsorb other types of gases or vapors such as acid gases, ammonia, formaldehyde, etc. In some cases, additional metals and salts are added to the carbon to selectively remove these compounds. For this reason, 3M offers a variety of cartridges and facepieces to help protect workers in different environments and satisfy personal preferences.

3M is committed to develop quality safety products to help protect workers. For more information about 3M organic vapor cartridges, please read Technical Data Bulletin #142 "Reuse of Organic Vapor Chemical Cartridges" at [www.3M.com/PPESafetySolutions](http://www.3M.com/PPESafetySolutions).

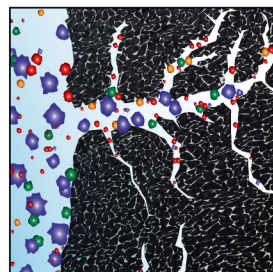
To establish a cartridge change schedule, visit [www.3M.com/SLSWeb/index.html](http://www.3M.com/SLSWeb/index.html).

## Factors that influence service life:

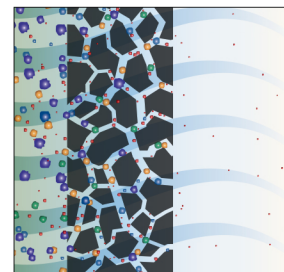
- Exposure concentration
- Temperature
- Humidity (water vapor takes up space in carbon pores)
- Breathing rate



Unfiltered organic vapors are drawn into the cartridge.



Activated carbon adsorbs organic vapors on molecular level.



Service life continues until vapors begin to escape the cartridge.



### WARNING

These respirators help protect against certain airborne contaminants. Before use, the wearer must read and understand the User Instructions provided as a part of the product packaging. A written respiratory protection program must be implemented meeting all the requirements of OSHA 1910.134 including training, fit testing and medical evaluation. In Canada, CSA standards Z94.4 requirements must be met and/or requirements of the applicable jurisdiction, as appropriate. **Misuse may result in sickness or death.** For proper use, see packaging instructions, supervisor, or call 3M OH&ESD Technical Service in USA at 1-800-243-4630 and in Canada at 1-800-267-4414.



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