



**VERIDIA**

**Product Overview.**

# A Guide to Face Masks.

Date Released

**August 2020**

Industry

**Aged Care**

# Mask Types.

Surgical Masks are classified by the barrier levels they meet under various tests of Internationally Recognised Standards such as EN14683 or ASTM F2100. Australian Standards harmonise with these two standards, and use testings from both. N95 Masks are governed by NIOSH-42C FR84. KN95s can be considered as an alternative to N95, and are governed by GB2626-20 06.

In Australia, surgical masks are graded according to the following levels:

- Level 1** – General Purpose Use where no splash risk present
- Level 2** – Procedures where minimal splash risk
- Type IIR** – Level 3 equivalent according to EN14683
- Level 3** – Surgical or invasive procedures with splash risk.
- N95** – Aerosol Generating procedures with splash risk.

Barrier Performance	Level 1	Level 2	Type II R	Level 3	KN95	Test
<b>VERIDIA CODES</b>	<b>33854</b>		<b>87432</b>	<b>50421</b>	<b>73684</b>	
Fluid Resistance	80mmHg	120mmHg	≥16.0kPa [>120mm Hg]	160mmHg	≥16.0kPa [>120mm Hg]	ASTM F1862 / F1862M-13 Or ISO 22609
Breathability	< 4mm H <sub>2</sub> O	< 5mm H <sub>2</sub> O	<49.0Pa/cm <sup>2</sup>	≥98% 5mm H <sub>2</sub> O	≤250 Pa [exhale]	EN 14683:2014
Bacterial Filtration Efficiency	≥95%	≥98%	≥98%	≥98%	≥95% @ 85L/m	ASTM F2101-14 Or EN 14683:2014
Particulate Filtration Efficiency	≥95% @ 0.1 micron	≥98% @ 0.1 micron	-	≥98% @ 0.1 micron	≥95% @ 0.3 micron	ASTM F2299
Flammability	Class 1	Class 1	-	Class 1	Pass	16 CFR Part 1610

**Resources:**

- Page 35 & 36 of the [CEC PPE Guide developed by the NSW Government](#)
- [Australian Standards Overview by Halyard Health](#)
- Page 8 of the [Medical Face Masks Requirements and Test Methods from the BSI](#)
- [See a comparison of the EN & ASTM Standards here.](#)
- [Comparison of FFP2, N95 and KN95 by 3M](#)

# Standards Information.

It can be confusing comparing various masks as there are a number of different standards from governing bodies around the world.

They are:



EN 14683:2014



ASTM F2101-14



[AS 4381:2015](#)



GB2626-20 06

NIOSH-42C FR84

[See a comparison of the EN & ASTM Standards here.](#)

The AS 4381:2015 is designed to harmonise with the EN & ASTM hence the references to these standards in the CEC Document.

## Sterile vs Non Sterile.

The [CEC PPE Guide developed by the NSW Government](#) does not specify the need to use sterile masks. The difference is outlined below.

<p><b>Sterile</b> Sterile Masks have been sterilized using ethylene oxide at the end of the manufacturing process.</p>	<p><b>Non Sterile.</b> Non Sterile Masks have not been sterilised. Performance Ratings remain the same.  <a href="#">This website</a> (Not Verified) Provides and overview on the difference. Please note it is not a verified source of information.</p>
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[Australian Standards Overview by Halvard Health](#)

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[See a comparison of the EN & ASTM Standards here.](#)

# Government Advice on Masks.

The NSW Government has developed a PPE Hand book regarding the use of surgical masks in COVID19 environments.

There are no stipulations around a particular Level of mask that must be used in Aged Care Homes – instead the [CEC PPE Guide developed by the NSW Government](#) says:

**‘Fluid resistant surgical masks (Levels 1, 2 and 3) are all suitable for protection against contact and droplet precautions (COVID-19).’**

[Refer Page 5 of the CEC PPE Guide]

The only situations where a higher-grade mask is needed, is when an [Aerosol Generating Procedure](#) is being conducted. In this case a structured mask (N95) should be worn.

# Government Advice on Extended Use of Masks.

Where extended use of PPE is occurring, the [CEC PPE Guide developed by the NSW Government](#) advises:

**‘International guidance states that surgical masks can be worn for **not more than 4 hours** and a P2/N95 respirator for up to 8 hours continuously or uninterrupted for multiple patients without removing the mask unless damaged, soiled or contaminated. **However, the use of one mask for longer than 4 hours** is likely to be poorly tolerated (increasing risk of self-contamination) and **is not recommended.**’**

[Refer Page 22 of the CEC PPE Guide]



**Max 4 hours.**

[Recommend 2 hours]



**Max 8 hours.**

[Recommend 4 hours]





# Time to care.