

# COVID-19 Comparison of Various N95s

## Surgical N95+ Respirator



- Classified as N95, N99, N100 which filters at least 95%, 99%, or 99.97% of non-oil-based airborne particles respectively
- Medical Device Class 1, requires an MDEL
- Fluid Resistant in accordance to ASTM F1862
- FDA clearance for its arterial to high velocity (at 120mmHg – 160mmHg) fluid resistance – approved for use in a surgical setting
- NIOSH approval is required
- Has the highest protection for a half face medical mask respirator
- Reduces the risk of inhaling hazardous airborne particles and aerosols
- Usually indicated for airborne diseases such as Influenza A
- Tight fitting seal required for effectiveness
- Requires fit testing every 2-3 years or whenever there is facial weight or structural changes to ensure optimal protection
- CDC provides a list of **Surgical N95+ models** for product distinction and identification
- Sample codes (HealthPRO Contract): 3M1860, 3M1870, KC46728

## N95+ Respirator



- Classified as N95, N99, N100 which filters at least 95%, 99%, or 99.97% of non-oil-based airborne particles respectively
- Medical Device Class 1, requires an MDEL
- NIOSH approval is required and approved models are listed on the **CDC website**
- Has the highest protection for a half face medical mask respirator
- Reduces the risk of inhaling hazardous airborne particles and aerosols
- Standard N95+ may protect against fluid splash or spray but does not require FDA clearance
- Usually indicated for airborne diseases such as Influenza A
- Tight fitting seal required for effectiveness
- Requires fit testing every 2-3 years or whenever there is facial weight or structural changes to ensure optimal protection

**Disclaimer:** The information provided herein is for information purposes only. While HealthPRO takes care in providing such information, HealthPRO assumes no responsibility and accepts no liability for any loss, damage or expense suffered or incurred by any user in any way related to this information. HealthPRO recommends that any user consult with its own advisors prior to acting on information contained in this document.

### KN95 Mask



- China’s mask, which filters at least 95% of non-oil-based airborne particles
- Medical Device Class 1, requires an MDEL
- China GB2626-2006 testing and approval is required
- GB2626-2006 KN95 is similar to NIOSH N95 based on the performance requirements stated in both standards
- Only a KN95 respirator that has been tested and approved for its compliance to GB2626-2006 can be considered equivalent to the NIOSH N95
- Medical Device Directorate (Health Canada) has indicated that the KN95 is accepted and meets NIOSH standards. They do, however, recommend caution with the **earloops** for fit testing
- **Government of Canada** lists KN95 as an alternative to N95

\*\*A number of HealthPRO members have indicated that this mask will only be considered as a suitable alternative to a procedure mask as the mask does not form a secure seal around the nose and mouth

### FFP2 Respirator Mask



- Europe’s respirator, which filters at least 94% of non-oil-based airborne particles
- Europe EN 149-2001 testing and approval is required
- EN 149-2001 is similar to NIOSH N95 based on the performance requirements stated in both standards
- Only an FFP2 respirator that has been tested and approved for its compliance to EN 149-2001 can be considered equivalent to the NIOSH N95

### P2 Respirator Mask



- Australia/New Zealand’s respirator, which filters at least 94% of non-oil-based airborne particles
- Australia/New Zealand AS/NZA 1716:2012 testing and approval is required
- AS/NZA 1716:2012 is similar to NIOSH N95 based on the performance requirements stated in both standards
- Only a P2 respirator that has been tested and approved for its compliance to AS/NZA 1716:2012 can be considered equivalent to the NIOSH N95

\*\*Each member is encouraged to make the decision that best meets their individual needs.

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### Korea 1st class Respirator Mask



- Korea’s respirator, which filters at least 94% of non-oil-based airborne particles
- Korea KMOEL - 2017-64 testing and approval is required
- KMOEL - 2017-64 is similar to NIOSH N95 based on the performance requirements stated in both standards
- Only a Korea 1st class respirator that has been tested and approved for its compliance to KMOEL - 2017-64 can be considered equivalent to the NIOSH N95

### DS Respirator Mask



- Japan’s respirator, which filters at least 95% of non-oil-based airborne particles
- Japan JMHLW-Notification 214, 2018 testing and approval is required
- JMHLW-Notification 214, 2018 is similar to NIOSH N95 based on the performance requirements stated in both standards
- Only a DS respirator that has been tested and approved for its compliance to JMHLW-Notification 214, 2018 can be considered equivalent to the NIOSH N95

### P95+ Respirator Mask



- Industrial respirators (non-medical)
- Classified as P95, P99, P100 which filters at least 95%, 99%, or 99.97% of oil-based airborne particles respectively
- NIOSH approval required
- Recommended for use in industries where oil containing products (fuel, lubricating or hydraulic oils, solvents, paints, and pesticides) are sprayed or used in processes that can produce aerosols or droplets
- Strongly resistant to oil with up to 40 hours service life
- Reduces the risk of inhaling hazardous airborne particles and aerosols but **not tested for fluid resistance**
- Can only be used in a medical setting for airborne and droplet prevention when N95+ respirators are not available
- Tight fitting seal required for effectiveness

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## R95+ Respirator Mask



- Industrial respirators (non-medical)
- Classified as R95, R99, R100 which filters at least 95%, 99%, or 99.97% of oil-based airborne particles respectively
- NIOSH approval required
- Can only be used in industries where oil containing products (fuel, lubricating or hydraulic oils, solvents, paints, and pesticides) are sprayed or used in processes that can produce aerosols or droplets
- Somewhat resistant to oil with up to 8 hours service life
- Reduces the risk of inhaling hazardous airborne particles and aerosols but **not tested for fluid resistance**
- Can only be used in a medical setting for airborne and droplet prevention when N95+ respirators are not available
- Tight fitting seal required for effectiveness

Please note that mask colour or brand does not affect its effectiveness if it is fit tested (in case of a respirator), sized appropriately, in compliance with regulations and tested to all necessary standards.

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