

# COVID-19 Personal Protective Equipment Purchasing Guidance

March 27, 2020 (Reviewed April 30, 2020)

When considering purchases of personal protective equipment for the COVID-19 response, purchasing authorities should consider the following when evaluating vendor's offers. It is advisable to review product packaging or paperwork to assure compliance with relevant standards.

## N95 respirators or equivalents

N95 disposable respirators are often recommended for healthcare and those populations with direct contact with individuals suspected or confirmed with COVID-19. N95 respirators are regulated by the US Food and Drug Administration (FDA) in the United States and other regulatory entities across the world. The following comparison is provided to assist in purchasing under these situations where FDA cleared medical devices may be in short supply. Based on this comparison, it is reasonable to consider China KN95, AS/NZ P2, Korea 1st Class, and Japan DS FFRs as "equivalent" to US NIOSH N95 and European FFP2 respirators, for filtering non-oil-based particles such as those resulting from wildfires, PM 2.5 air pollution, volcanic eruptions, or bioaerosols (e.g. viruses).

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| <b>Certification/<br/>Class<br/>(Standard)</b> | N95<br>( <a href="#">NIOSH-42C</a><br><a href="#">FR84</a> ) | FFP2 (EN<br>149-2001) | KN95<br>(GB2626-<br>20 06) | P2 (AS/NZ<br>1716:2012) | Korea 1st<br>Class<br>(KMOEL -<br>2017-64) | DS (Japan<br>JMHLW-<br>Notification<br>214, 2018) |
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## Procedure masks

Medical face masks, commonly referred to as procedure masks or surgical masks, are being recommended for individuals whom may be symptomatic or have confirmed exposure to COVID-19 patients. These masks are intended to reduce the spread of the virus through droplets and expired breathe. The American Society for Testing and Materials ASTM standards are referenced by the Food and Drug Administration (FDA), as the endorsed standard in the US for medical face mask production. The current standard for medical face masks is ASTM F2100-11 which can be used to evaluate medical face mask purchasing.

## Gloves

Gloves are promoted for all individuals interacting with patients and suspect cases of COVID-19. Medical gloves can meet the appropriate FDA and ASTM standard (such as ASTM D3577, ASTM D3578, ASTM D5250, ASTM D6319) or an equivalent test method. There are a variety of types of gloves that can be used to meet the needs of providers, including Latex, Vinyl (PVC), and Polymer – other than Vinyl (includes Nitrile, Polyurethane, etc.) Nitrile and Latex are popular among many in the health and medical community.

## Gowns

American Society for Testing and Materials (ASTM) F2407 Level 1 should be the minimum for gowns being purchased. These gowns should provide a minimal level of protection for those interacting with suspect and non-suspect COVID-19 patients.

## Face shields

Face shields are not meant to function as primary respiratory protection and should not be used alone because aerosols can flow behind the visor, so a protective facemask (medical/surgical mask, N95 FFR, etc.) should be worn concurrently. From the infection control standpoint, no standards currently exist regarding performance standards, but the ISEA Eye and Face Protection Group has initiated development of a voluntary standard. Face shield product performance specifications are found in the recently-revised voluntary ANSI/ISEA Z87.1 – 2015 American National Standard for Occupational and Educational Eye and Face Protection. Medical/surgical masks with integral visors should not be relied upon as optimal protection.

