

**PUREZERO\***

Cleanroom Nitrile Gloves



# DOUBLE DONNING: STAYING DOUBLE PROTECTED IN THE CLEANROOM



## Cleanroom Nitrile Gloves

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In the cleanroom, the double donning process is seen as critical yet complicated in terms of guidelines and best practices. Oftentimes, individual cleanrooms will provide their workers with a unique protocol to coach them through the donning process to ensure it is done properly and meets their needs.<sup>1</sup> However, the act of double donning to maintain sterility could be second nature for some cleanrooms while being an unfamiliar process for others.

### What is Double Donning?

Double donning is the act of dressing in two layers of gloves or other personal protective equipment (PPE) to ensure optimal safety and protection in a cleanroom environment. According to qualitative research conducted by Owens & Minor's HALYARD\* product brand, six out of ten top safety managers and facility directors across industries state double donning is common and esteemed as a best practice.<sup>1</sup>

Double donning not only protects a worker from potentially hazardous conditions and maintains a sterile workspace, but it also maintains a product's integrity where suitable since a single layer of gloves can sometimes deteriorate when handling materials or when being disinfected. Double donning ensures that the inner gloves do not become contaminated and decreases the risk for skin contact. It also allows for easier changing of protective gear. While double donning, cleanroom professionals only need to change their outer layer of gloves and do not have to leave the workspace to do so – making the doffing process less time-consuming while preserving sterility.



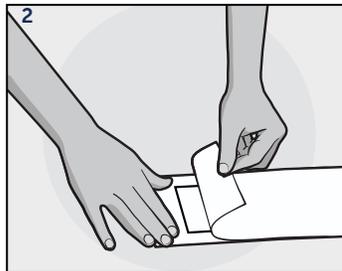
Double Donning ensures optimal safety and protection in a cleanroom environment.

## DOUBLE DONNING GLOVES

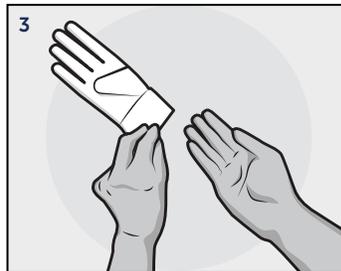
While in the process, workers and their environment must remain uncontaminated, and the below are steps they should take when double donning sterile gloves:<sup>2</sup>



1 Wash your hands/arms with mild soap or disinfectant and sanitize your hands with Isopropyl Alcohol (IPA).



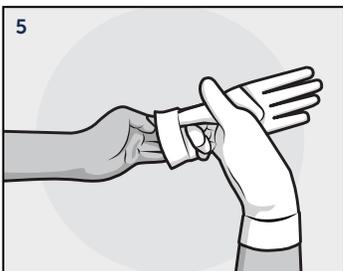
2 Wipe down the exterior of 2 packs of gloves with Isopropyl Alcohol (IPA). Peel apart the top of both packs while ensuring you do not touch the outer surface of the gloves. Check both pairs for any visual signs of contaminants or pin holes. Put the second pack of gloves aside to don after you don the first set.



3 Grasp the interior of one glove and carefully pull over the opposite hand.



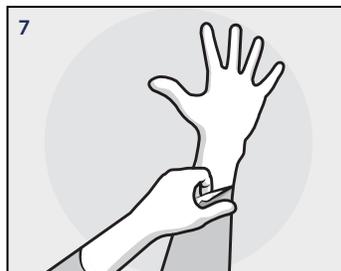
4 Gently ease the glove up over the hand and wrist, leaving the cuff folded.



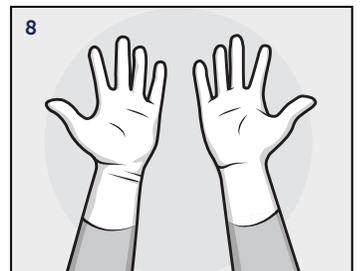
5 Lift the second glove under the folded cuff using gloved fingers.



6 Slide your second hand into the glove by holding it under the folded cuff, then unfold the cuff over the wrist and arm.



7 Using gloved fingers, unfold the second cuff over your wrist and arm. Repeat the process starting with the second cleaned, open pack in Step 2.



8 To remain sterile, do not touch anything with your gloved hands.

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Double donning is common across a variety of industries including pharma and medical, semiconductor, biotechnology, engineering, solar and manufacturing, and will look different depending on industry, company and cleanroom specifications. However, it is especially common in workspaces where there is a notably higher risk to workers, including level 3 and 4 laboratories, as well as manufacturing environments where products must be made free of contamination.

### Double Donning the Correct Way

There are no industry standards or guidelines for the double donning process. However, there are several best practices for cleanroom professionals to follow.

The double donning process varies depending on the specific cleanroom environment specifications. Ideally it should be conducted in an environment free of particulate and micro-organism contaminants – meaning that it is critical for cleanroom personnel to maintain cleanliness and adhere to proper personal hygiene protocols before beginning work.

To guide the double donning process, some facilities may distinguish first and second pairs of gloves by their colors. Using two different glove colors may also aid in detecting holes in the gloves.<sup>2</sup> Additionally, having an under glove with a smooth finish may make it easier for the top glove to glide on. Most of the time, the second pair of gloves used in double donning will also have an extended glove cuff or a beaded cuff to aid in roll down prevention and allow for better grip when taking the gloves on and off.<sup>3</sup>

Nine out of 10 users agree that when double donned, HALYARD\* **PUREZERO\*** HG3 Sterile Light Blue Nitrile Gloves have the comfort, dexterity, tactile sensitivity, donning and doffing of a single HALYARD\* **PUREZERO\*** HG3 Sterile Light Blue Nitrile glove.<sup>5</sup>

Overall, donning gloves can be cumbersome, especially if repeated attempts are needed to ensure an environment without particulate or micro-organism contamination. In a global cleanroom survey conducted by Owens & Minor's HALYARD\* product brand, 30% of respondents noted ease of donning as a frequent pain point and unmet need of gloves in the cleanroom.<sup>4</sup> When it comes to double donning, ensure your cleanroom is stocked with gloves that make the process easy. The gloves in your inventory should be comfortable, durable and allow for ease of donning.

The most important aspect of double donning correctly comes down to your PPE supplier. Partner with a reliable supplier that produces quality products and will keep your cleanroom stocked with appropriate gloves that meet your cleanroom needs.

Contact Owens & Minor to ensure you are double donning the correct way in your cleanroom.

For more information or samples, contact your distributor or visit: [www.purezerogloves.com](http://www.purezerogloves.com)



HALYARD\* is an Owens & Minor brand

1. Protective Gloves in Semiconductor and Pharmaceutical Cleanrooms Research, Conducted in 2019. Data on file. – Owens & Minor Halyard

2. HALYARD\* **PUREZERO\*** Sterile Cleanroom Nitrile Gloves Donning and Doffing Technique (Video) – Owens & Minor

3. **PUREZERO\*** Cleanroom Gloves – Owens & Minor Halyard

4. Halyard APAC (Asia Pacific) Cleanroom Gloves Market Landscape Research Report (China, South Japan and Korea),

Conducted in 2020. Data on file. – Owens & Minor Halyard

5. HALYARD\* User Study

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