

# EN 14126 AND ASTM F 1671 STANDARDS OVERVIEW

# When choosing a garment for protection against viruses like the one that causes COVID-19, it's important to know which regulatory standards exist to help ensure proper protection.

In the European Union, the EN 14126 standard for protective clothing against inflective agents measures the ability of a suit or gown to protect users against bacteria, fungi and viruses. The EN 14126 uses different test methods to measure the penetration resistance of the garment material to infective agents using different kinds of exposure.

In North America, ASTM F 1671 is the standard to test the resistance of materials used in protective clothing to penetration by blood-borne pathogens. A common misunderstanding among many end-users is that they are protected from blood, body fluids, and other potentially infectious materials (OPIM) when they wear any type of fluid-resistant garment or surgical or isolation gown. Only items of clothing and/or accessories featuring ASTM F 1671 are considered impermeable to blood and viral penetration.

## **Differences Between Bacteria and Viruses**



#### Bacteria are usually 1 to 10 micrometers. On the other hand, the size of a virus is 1/10 to 1/100 of bacteria.

The small size of a virus makes it easy to pass through the pinholes in ordinary protective garments. Garments featuring the EN 14126 marking, however, are proven to act as an effective barrier even against small viruses.



For garments offering protection against infective agents including viruses.



**EN 14126** certified garments should carry this pictogram.

EN 14126 Comprises the following material tests:

Penetration test using synthetic blood **(ISO 16603)** 

Resistance to penetration by viruses **(ISO 16604)** 

Resistance to penetration by bacteria (ISO 22610)

Resistance to penetration by biologically contaminated aerosols (**ISO/DIS 22611**)

Resistance to penetration by contaminated dust (ISO 22612)

### Best practices for protective clothing use



Wash hands with soap and water for 20 seconds before donning PPE items and after taking them off



Wearers must be trained in how to don and doff PPE



Wear properly fitting PPE garments, snug but not tight or loose. It should not impede movement or communication



Peel off PPE items turning them inside out as they are removed



Do not wear PPE outside of contaminated areas to prevent spreading contamination



Never use damaged or visibly soiled PPE item



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