

# Australian Standard®

## Cleanrooms, workstations, and safety cabinets—Methods of test

### Method 19: Sizing and counting of particulate contaminants in and on cleanroom garments

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#### METHOD

**1 SCOPE.** This Standard sets out methods for determining the size and number of detachable particulate matter of 5 µm diameter and larger in and on cleanroom garments. Different sampling methods are specified for high and low permeable fabrics.

**2 REFERENCED DOCUMENTS.** The following documents are referred to in this Standard:

- AS  
 1386 Cleanrooms and clean workstations  
 1386.1 Part 1: Principles of clean space control  
 1807 Cleanrooms, workstations, and safety cabinets—Methods of test  
 1807.0 Part 0: List of methods and apparatus  
 1807.9 Method 9: Particle counting in cleanrooms by microscopic sizing and counting

**3 DEFINITIONS.** For the purpose of this Standard, the definitions given in AS 1386.1 and AS 1807.0, and those below apply.

**3.1 Permeability**—the ability of a fabric to allow air to pass through its structure.

**3.2 Low permeable fabric**—a fabric with a permeability which is so low that, with the apparatus specified in Clause 5, samples of air cannot be drawn through the fabric at the nominated flow rate of approximately 28 L/min (0.47 L/s).

**3.3 Permeable fabric**—a fabric with a permeability which is high enough that, with the apparatus specified in Clause 5, samples of air can be drawn through the fabric at the nominated flow rate of approximately 28 L/min (0.47 L/s).

**4 PRINCIPLE.** For permeable fabrics, filtered air is drawn through a number of designated areas of a single thickness of the garment fabric at a specified rate. For fabrics with low permeability, the fabric is placed over a screen and vacuumed at a specified pressure. The sampled air is filtered through a membrane filter impinging particles on the filter for analysis by microscopic techniques.