



FACE MASKS

PPE Product Information for the COVID-19 Response

- Medical face mask performance classes are based on the barrier performance properties of the medical face mask materials (fluid resistance, bacterial filtration efficiency, and sub-micron filtration efficiency).
- Medical face mask materials covered under this specification shall be designated as one or more of the following performance classes as based on the barrier performance properties of the materials used in medical face masks: Level 1 barrier, Level 2 barrier, and Level 3 barrier.

MASK MATERIAL LEVELS

LEVEL 1

Level 1 barrier medical face mask materials are evaluated for their ability to capture sub-micron particles, resistance to penetration by synthetic blood at the minimum velocity specified in Test Method F1862, bacterial filtration efficiency, and differential pressure.

LEVEL 2

Level 2 barrier medical face mask materials are evaluated for their ability to capture sub-micron particles and are evaluated for resistance to penetration by synthetic blood at the middle velocity specified in Test Method F1862, bacterial filtration efficiency, and differential pressure.

LEVEL 3

Level 3 barrier medical face mask materials are evaluated for resistance to penetration by synthetic blood at the maximum velocity specified in Test Method F1862, submicron particulate filtration, bacterial filtration efficiency, and differential pressure.

PERFORMANCE LEVEL

The properties of the face mask should conform to the specifications requirements in Table 1 (below).

TABLE 1 Medical Face Mask Material Requirements by Performance Level

Characteristic	Level 1 Barrier	Level 2 Barrier	Level 3 Barrier
Bacterial filtration efficiency, %	≥95	≥98	≥98
Differential pressure, mm H ₂ O/cm ²	<5.0	<6.0	<6.0
Sub-micron particulate filtration efficiency at 0.1 micron, %	≥95	≥98	≥98
Resistance to penetration by synthetic blood, minimum pressure in mm Hg for pass result	80	120	160
flame spread	Class 1	Class 1	Class 1

PERFORMANCE LEVEL CONT

Test Methods

- Bacterial Filtration Efficiency—Determine the bacterial filtration efficiency.
- Differential Pressure—Determine breathing resistance or differential pressure.
- Sub-Micron Particulate Filtration—Determine particulate filtration efficiency.
- Resistance to Penetration by Synthetic Blood—Determine synthetic blood penetration resistance
- Flammability—Determine flammability

Packaging

The primary package containing the medical face masks shall include:

- Manufacturer name
- Product or style name
- Product lot
- A graphic representation indicating the performance level met in Table 1 with the technical requirements of the indicated performance level. The graphic representation shall include a prominent visual of the performance level.