

## Barrier



**HYDROSTATIC PRESSURE:** Measures the water penetration resistance of fabrics to constantly increasing hydrostatic pressure. Indicates how the material will perform under external pressure of fluids accumulating on fabric.

Standard(s): AATCC 127

Goal

H



**WATER IMPACT:** Measures the resistance of fabrics to the penetration of water by spray impact. Indicates how the material will perform when fluids fall or splash onto the fabric.

Standard(s): AATCC 42

Goal

L



**ALCOHOL REPELLENCY:** Measures the resistance of fabrics to penetration by aqueous isopropanol solutions. Indicates how the material will perform when alcohol, blood or body fat comes in contact with the fabric.

Standard(s): IST 80.6

Goal

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**RESISTANCE OF PROTECTIVE APPAREL TO SYNTHETIC BLOOD PENETRATION:** Determines the resistance of fabrics to blood penetration. Indicates how the material will perform when in comes in contact with blood.

Standard(s): ASTM F1670

Goal  
pass



**RESISTANCE OF MEDICAL FACE MASKS TO PENETRATION BY SYNTHETIC BLOOD:** Determines the resistance of a facemask to blood penetration. Indicates how the material will perform when it is sprayed by a horizontal stream of blood.

Standard(s): ASTM F1862

Goal  
pass

## Strength



**MULLEN BURST :** Measures the resistance of fabrics to puncture under increasing pressure. Indicates the material's resistance to blunt puncture.

Standard(s): ASTM D3786, IST 30.1

Goal

H



**GRAB TENSILE :** Measures the resistance of fabrics to break under an increasing pulling stress. Indicates the material's resistance to breaking when there is no initial tear in the material.

Standard(s): ASTM D5034, IST 110.1

Goal

H



**TRAPEZOID TEAR :** Measures the resistance of fabrics to tear under a controlled force. Indicates the material's resistance to tearing when there is an initial tear in the material.

Standard(s): ASTM 5733, IST 100.2

Goal

H



**PUNCTURE RESISTANCE :** Measures the resistance of fabrics to puncture of a sharp-edged probe. Indicates the material's resistance to puncture by a sharp object.

Standard(s): ASTM F1342

Goal

H

## Composition



**BASIS WEIGHT :** Determines the weight of the fabric structure

Goal

N/A

Standard(s): ASTM D3776



**COEFFICIENT OF FRICTION:** Measures the coefficients of starting and sliding friction of a material. Indicates how the material will perform when dragged across a surface, i.e. slippery or tacky.

Goal

H

Standard(s): ASTM D1894, IST 140.1

## Comfort



**AIR PERMEABILITY :** Measures the flow of air through a nonimpervious material at a specific pressure differential. Indicates the material's breathability and coolness during use.

Goal

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Standard(s): IST 70.1



**MOISTURE VAPOR TRANSMISSION RATE (MVTR):** Measures the rate of water vapor transmission through an impervious material. Indicates the material's comfort level.

Goal

H

Standard(s): ASTM E96

## Absorbency



**FIXED VOLUME:** Measures the amount of time in seconds for a fabric to absorb a given (small) volume of water. Indicates how fast the fabric will absorb fluid.

Goal

L

Standard(s): AATCC 127



**WICKING RATE:** Measures the rate at which water is absorbed into a fabric. Indicates how fast a fabric will absorb fluid over a measured distance.

Goal

H

Standard(s): IST 10.1

## Linting/Abrasion



**GELBO FLEX:** Measures the number of lint particles removed from a fabric specimen during continuous twisting flexure. Indicates the amount of lint a material will generate when in use.

Goal

L

Standard(s): IST 160.1



**MARTINDALE ABRASION:** Measures the amount of surface fiber generated from abrasion. Indicates the amount of fibers raised when abraided.

Goal

L

Standard(s): *Internal procedure*

## Safety

N/A

**ELECTROSTATIC DECAY:** Measures the time required for a material to dissipate a charge applied to the surface. Indicates how quickly a material will discharge static.

Goal

L

Standard(s): NFPA 99, IST 40.2