

THE MAKING OF A SUPERIOR MASK

3 LAYERS OF PROTECTION

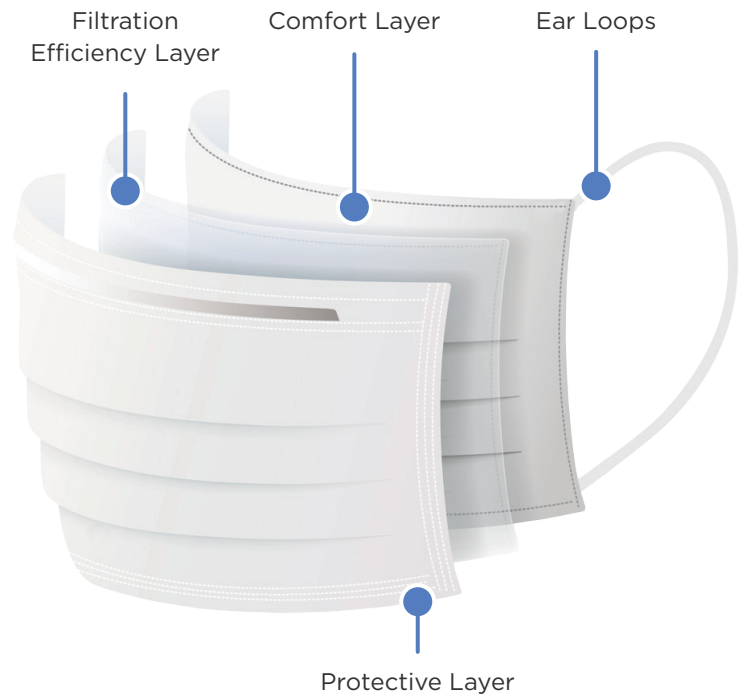
Not all masks are created equal! Rensa ClearCare™ masks are created with high-quality technical materials to ensure optimal filtration efficiency and breathability.

Outer layers:

- Material: Spun-bond polypropylene
- Purpose:
 - Comfort
 - Fluid barrier

Inner Layer

- Material: Meltblown polypropylene
- Purpose:
 - High filtration efficiency
 - Electrostatic collection of fine particulates



ASTM RATINGS

The American Society of Testing and Materials (ASTM) is responsible for testing face masks that will be used in a medical environment. **Rensa ClearCare™ masks meet or exceed ASTM standards.**

	ASTM Level 2		ASTM Level 3	
	ClearCare Pro Results [†]	ASTM Acceptance Criteria	ClearCare Ultra Results [†]	ASTM Acceptance Criteria
Particulate Filtration Efficiency (PFE)	>99.8%	≥98% particles 0.1 μm	>99.8%	≥98% particles 0.1 μm
Bacterial Filtration Efficiency (BFE) (tested with Staphylococcus aureus)	>99.5%	≥98% bacteria 3.0 ±0.3 μm	>99.5%	≥98% bacteria 3.0 ±0.3 μm
Differential Pressure* Delta P (mm H ₂ O/cm ²)	<3.0 mm H ₂ O/cm ²	<5.0 mm H ₂ O/cm ²	<3.0 mm H ₂ O/cm ²	<5.0 mm H ₂ O/cm ²
Fluid Resistance (tested with synthetic blood)	32/32 pass at 160 mm Hg	29/32 pass at 160 mm Hg	30/32 pass at 160 mm Hg	29/32 pass at 160 mm Hg

*Differential pressure is a measure of breathability. The lower the differential pressure, the easier the mask will be to breathe through.

[†]From Nelson Lab reports dated July 08 2020 (for Rensa ClearCare Pro) and July 06 2020 (for Rensa ClearCare Ultra); subsequent batches may vary in exact test numbers but are guaranteed to meet or exceed ASTM standards.

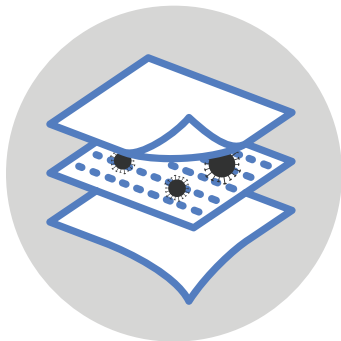
THE MIDDLE MATTERS

Meltblown polypropylene has special characteristics that attract and capture tiny particles, including bacteria and viruses. This property allows masks with a high-quality meltblown layer to maintain high capture efficiency without sacrificing breathability.

Breathability vs. Filtration Efficiency



Measured as **differential pressure**



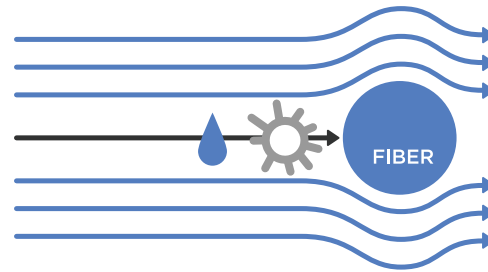
Measures ability to capture particulates and bacteria

Poor masks sacrifice breathability to achieve required filtration efficiency.

TWO TYPES OF PARTICULATE CAPTURE

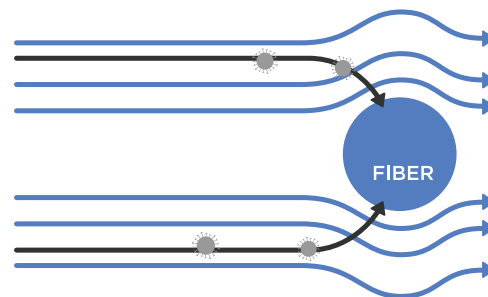
Direct Filtration (Larger Particles)

- Larger particles and respiratory droplets are physically blocked by mask fibers.



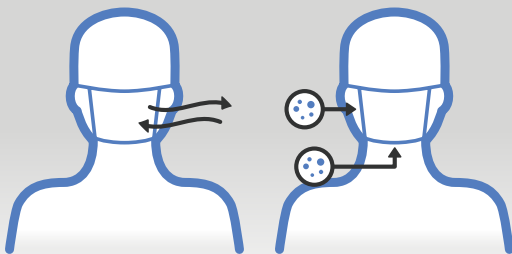
Electrostatic Attraction (Tiny Particles)

- Tiny particulates and individual bacteria and viruses move erratically through filter material (Brownian motion).
- Fibers carry a slight charge, which attracts tiny particulates (electrostatic attraction).
- Does NOT depend on fibers physically blocking each particle.
- Captures and holds particles within mask material.



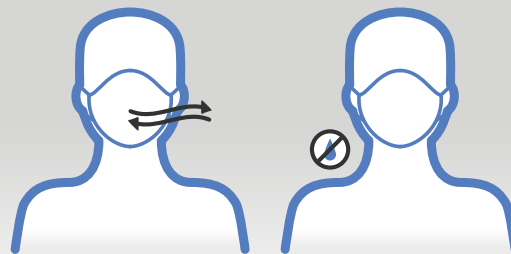
RENSA CLEARCARE vs. N95

Rensa ClearCare surgical masks use the same filtration material (meltblown nonwoven polypropylene) used in N95 respirators.



Our ASTM-Rated Surgical Masks

- Captures >99% of particulates sized 0.1 - 1 micron
- Provides partial protection for wearer



N95 Respirator

- Captures >98% of particulates sized 0.1 - 1 micron
- Seals to face

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Sources: CDC; OSHA; ASTM