

## Filter Media Nonwoven



### Part 1: Definition & Core Technology

Our precision-engineered filter media nonwoven fabrics are performance-driven materials designed for critical separation and purification tasks across air and liquid applications. They are manufactured by strategically forming and bonding fine fibers—primarily polyester for air filtration and specialty viscose for food-grade liquid filtration.

The selection of fiber is application-critical: Polyester offers excellent mechanical strength, moisture resistance, and consistent performance in varied climates, making it ideal for air filtration. Food-Grade Viscose provides superior inherent absorbency, purity, and compatibility with edible oils and dairy products. Our core expertise lies in manipulating fiber diameter, layering, and bonding density to create a calibrated pore structure that traps target particulates while maintaining optimal flow rates.

### Part 2: Key Performance & Functional Advantages

1. **High-Efficiency Particulate Capture:** Engineered pore gradients and fiber matrices enable high capture efficiency for dust, pollen, microbes, and other contaminants across a broad particle size spectrum, contributing to cleaner air and purer liquids.

2. **Low Flow Resistance & Energy Efficiency:** The optimized balance between fiber density and porosity ensures minimal pressure drop, allowing air or liquid to pass through with less energy consumption, which enhances the efficiency and longevity of the filtration system.

3. **High Dirt-Holding Capacity & Long Life:** The deep-loading, three-dimensional structure provides substantial capacity to retain captured contaminants before clogging, extending service intervals and reducing maintenance costs and waste.

4. **Material Integrity & Durability:** Fabrics maintain strong tensile and burst strength even when wet, resisting deformation under operational pressure and vibration to ensure consistent performance and no media migration.

5. **Tailored Solution Platform:** We provide extensive customization to meet precise system requirements:

Structure & Composition: Choice of fiber (Polyester, Viscose), fine fiber layers, and composite constructions.

Performance Parameters: Adjustable basis weight (30 – 150 gsm), thickness, and permeability.

Physical Specifications: Widths from 40 to 240 cm. Available in white, grey, blue, and other colors.

### **Part 3: Primary Filtration Applications**

These filter media are essential components in a wide range of purification systems:

**Air Purification & HVAC:** Filters for Air Purifiers, HVAC systems, Cabin Air Filters, and Air Handling Units in commercial buildings.

**Clean Environments:** Final filters for Purification Workshops, Cleanrooms, and Air Cleaning Systems in electronics, pharmaceutical, and food production.

**Liquid Filtration:** Filter bags, cartridges, and sheets for Liquid Purifiers, process water, and industrial coolants.

**Food & Beverage Processing:** Critical filtration media for Cooking Oil Filters Sheets & Envelopes, Milk and Dairy Filters, and processes requiring food-grade material compliance.

### **Part 4: Compliance & Responsible Manufacturing**

**Quality & Consistency:** Our production is governed by strict process controls to ensure every roll delivers consistent filtration characteristics, batch after batch.

**Sustainable Design:** We focus on creating durable, high-capacity media to reduce change frequency. Our manufacturing emphasizes precision and efficiency to minimize raw material waste and energy use.

### **Part 5: Our Value as Your Filtration Partner**

We are more than a roll goods supplier; we are a filtration performance partner. By collaborating on the interplay between fiber science, structure design, and your system's requirements, we help engineer media that optimizes efficiency, life, and total cost of ownership. Our technical team is dedicated to supporting your product development, ensuring our material is the reliable, high-performing heart of your filtration solution.