



## Sephira Spunbond Flat-Bond Textiles Overview

Sephira Spunbond textiles are types of nonwoven fabrics produced by extruding continuous filaments, which are then bonded to form a cohesive material.

**Spunbonding** applies uniform heat and pressure across the fabric, resulting in a smoother surface for all applications requiring smooth and strong fabric.



**sephira**  
SPUNBOND & FLATBOND

## Acme Mills' Sephira Spunbond Nonwoven Fabrics

Acme Mills offers high-quality spunbond nonwoven fabrics under the **Sephira** brand. These fabrics are:



### VERSATILE CONFIGURATIONS

Available in both point bond and flat-bond styles.



### CUSTOMIZABLE DIMENSIONS

Custom widths up to 126 inches.



### VARIABLE BASIS WEIGHTS

Ranging from 12gsm to 300gsm.



### ENHANCED FEATURES:

- UV protection
- Hydrophilic or hydrophobic properties
- Availability in multiple colors

Sephira fabrics are tailored to meet diverse application requirements across industries.

## Applications of Spunbond Flat-Bond Textiles

The versatility and durability of these textiles make them suitable for various industries and applications:



### MEDICAL AND PHARMACEUTICAL

Used in face masks, surgical gowns, and shoe covers for their lightweight and breathable nature.



### AUTOMOTIVE

Found in headliners, airbags, and acoustic insulation, offering strength and adaptability.



### CONSTRUCTION

Utilized in roofing underlayments and vapor barriers for reliable building solutions.



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# Sephira Spunbond Flat-Bond



## MILITARY

Suitable for protective gear and equipment covers due to their durability.



## CHEMICAL

Used in filtration and protective clothing for chemical resistance and strength.



## FOOD & BEVERAGE

Employed for filtration to ensure product purity and safety.



## FURNITURE & BEDDING

Applied in mattress ticking, dust covers, and upholstery backing for breathability and comfort.

## Why Choose Acme Mills?

Acme Mills is committed to delivering tailored solutions for a wide range of industries. Their spunbond fabrics are designed to meet specific project needs, ensuring exceptional performance in both mass production and specialized applications.

## Unlock Innovation with Sephira Spunbond Nonwoven Fabrics

Experience the versatility of Sephira spunbond nonwoven fabrics from Acme Mills. Our customizable solutions, available in both point and flat-bond configurations, offer exceptional performance across industries. Whether you need lightweight medical textiles, durable automotive components, or reliable filtration solutions, Sephira fabrics deliver the quality and reliability you demand. Contact us today to discuss your specific requirements and unlock the potential of our innovative nonwoven materials.



## Case Study

### Compression Molding Scrim for High-Performance Automotive Air Vent Systems

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**Summary:** Acme Mills partnered with a leading manufacturer in the compression molding industry specializing in automotive air vent systems for major OEMs. The collaboration focused on supplying spunbond flat bond polyester scrim to stabilize the compression molding process, enhancing component precision and consistency. The project required precise material customization, adherence to rigorous automotive quality standards, and on-time delivery to align with the client's production timelines.

This partnership underscores Acme Mills' capability to deliver tailored material solutions that meet stringent industry performance requirements and support efficient, high-quality manufacturing.

### Project Specifications

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- ⚙️ **Material:** Spunbond flat bond polyester scrim (multiple weights: 0.5 oz, 0.75 oz, and 1 oz)
- ⚙️ **Order Volume:** Over 2.3 million linear feet of scrim material
- ⚙️ **Use Case:** Compression molding of air vent systems for automotive OEMs





## Manufacturing Details

### 1. MATERIAL PREPARATION

**Base Material:** High-strength spunbond polyester filaments, selected for durability and stability.

**Fiber Composition:** Engineered to achieve optimal tensile strength and minimal elongation for consistent performance during molding.



### 2. FABRIC PRODUCTION

**Spunbond Process:** Continuous polyester filaments were extruded, stretched, and bonded to form a uniform scrim with a precise weight and thickness.

**Customization:** Scrim rolls were produced in specific widths and lengths to match the client's mold dimensions, minimizing material waste.



### 3. ROLL SLITTING AND RE-ROLLING

Scrim was slit to required widths and re-rolled for efficient handling and transport. Each roll underwent inspection during re-rolling to confirm accurate length, tension, and edge quality.



### 4. PACKAGING AND DELIVERY

Rolls were moisture-protected and securely wrapped for transportation.

Shipments were labeled according to client specifications, with detailed bill of lading documentation to facilitate seamless inventory management.





## Quality Control Steps

### INCOMING MATERIAL INSPECTION

- ✓ **Material Certification:** Polyester fibers were tested for strength, uniformity, and compliance with industry standards.
- ✓ **Dimensional Consistency:** Initial rolls were inspected to confirm adherence to width, thickness, and weight specifications.

### IN-PROCESS INSPECTIONS

- ✓ **Spunbond Integrity:** Visual and mechanical inspections were conducted to ensure uniform bonding and eliminate defects.
- ✓ **Performance Testing:** Random samples underwent tensile strength and elongation tests to validate mechanical properties.

### FINAL INSPECTION

- ✓ **Visual and Physical Assessment:** Final rolls were inspected for defects, such as uneven bonding or frayed edges.
- ✓ **Labeling and Packaging:** Finished products were verified for accurate labeling and packaging specifications before shipment.

## Project Highlights

- ✓ **Enhanced Process Stability:** The spunbond scrim provided reliable mold stabilization, reducing deformation and ensuring dimensional consistency in molded components.
- ✓ **Custom Solutions:** Acme Mills tailored the scrim dimensions and properties to meet the client's specific requirements for compression molding.
- ✓ **Quality Assurance:** Rigorous quality control protocols ensured each batch met stringent automotive industry standards for performance and durability.
- ✓ **Reliable Supply Chain:** Acme Mills maintained an efficient production and delivery schedule, supporting the client's manufacturing continuity.



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# Sephira Spunbond Flat-Bond

This project demonstrates Acme Mills' expertise in delivering high-performance materials for compression molding applications in the automotive industry. By providing customized spunbond scrim with precise material properties and adhering to rigorous quality control processes, Acme Mills supported the client's production of durable, high-quality air vent systems for major automotive OEMs. This collaboration highlights Acme Mills' role as a trusted supplier of innovative material solutions for demanding manufacturing environments.

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## Contact Acme Mills

Need assistance in maximizing manufacturing efficiencies to ensure quality and optimize costs? Call or email us today and one of our skilled team members will lead the way. (800) 521-8565 ~ [info@acmemills.com](mailto:info@acmemills.com)