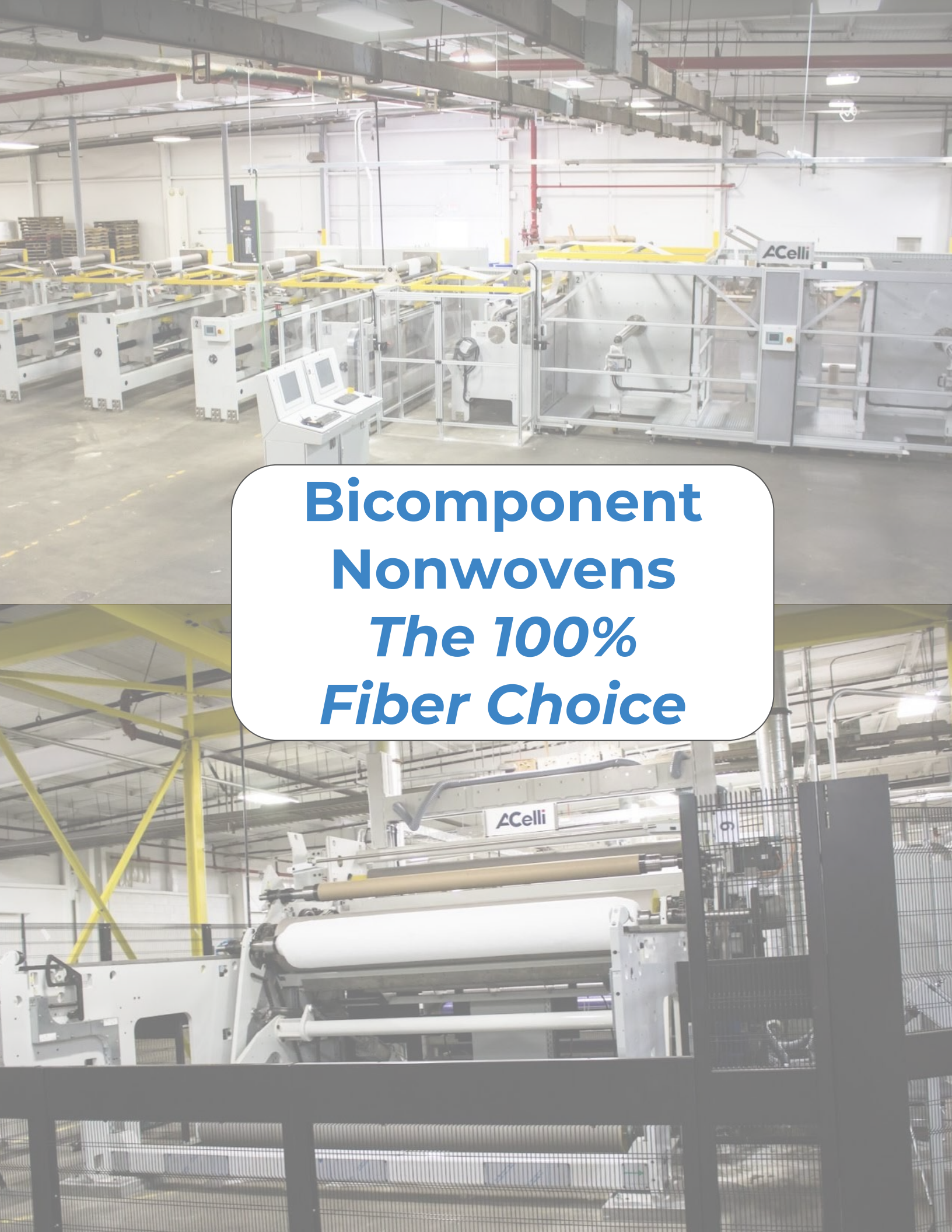

Bicomponent Nonwovens *The 100% Fiber Choice*

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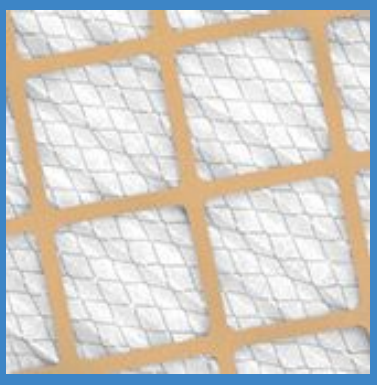

Nonwoven Innovation

Innovative nonwoven fabrics have provided the substance for a diverse range of products for all types of industries. Nonwovens can be used to develop single-use, limited-life fabric products or highly durable items. They can replicate the appearance, texture, and strength of a woven fabric. Nonwoven characteristics can include strength, stretch, softness, and they can even be designed to withstand washing.

Nonwoven fabrics can also be developed for specific jobs, with functional features such as absorbency, resistance to liquids, flame retardancy, cushioning, filtering, bacterial barriers and sterility. Nonwoven fabric properties are often combined to create materials suited for specific uses, while keeping a good balance between product function and cost.

Nonwoven Fabric Products

Innovations in nonwoven fabrics are rapidly increasing as the demand for them grows. The possibilities are virtually unlimited, and span a wide variety of industries, including:

- Agricultural fabric
- Apparel linings
- Automotive headliners
- Automotive upholstery
- Biodegradable products
- Cable insulation
- Carpeting
- Civil engineering fabrics
- Disposable diapers
- Envelopes
- Filters
- Geotextiles
- Home construction wraps
- Household wipes
- Hygiene products
- Incontinence products
- Insulation
- Labels
- Laundry aids
- Medical disposables
- Medical scrubs
- Orthopedic fabrics
- Personal wipes
- Roofing
- Sterile products
- Tags
- Upholstery
- Wound dressing

Treatments and Finishing

In order to create nonwoven fabrics that most specifically meet application requirements, a variety of treatment options are available to modify or enhance the performance of the nonwoven. Many distinct chemical substances can be applied before or after binding, or certain mechanical processes can be used on the nonwoven after binding. Treatments are what allow nonwovens to be made conductive, flame retardant, water repellent, porous, antistatic, breathable, absorbent, and more. Nonwoven treatments also allow the fabrics to be coated, printed, flocked, dyed, and otherwise customized.

Nonwoven fabric is typically produced in the form of a roll. Part of the finishing process involves converting the fabric from roll form by slitting, cutting, folding, sewing or heat sealing. The converted nonwoven products can be further tailored to the precise needs of the customer and application.

What are Bicomponent Fibers?

Along with a variety of nonwoven fabric treatment options, a wide range of materials can be used to construct nonwovens, including cotton, viscose, and polyester. Another option that is growing in popularity is bicomponent fiber nonwoven fabric.

Bicomponent fibers are made up of two individual components distributed over the full length of a finished fiber. The components can be from the same or entirely different polymer types, and each might possess unique physical or chemical properties. When two polymers are combined to create a single fiber, the unique properties of each are imparted on the resulting bicomponent fiber. This bicomponent fiber is effectively "customized" with specific characteristics that can be applied in a particular application.

Types of Bicomponent Fibers

Concentric sheath/core is a configuration used to melt fibers with a low melting point polymer sheath around a core with a high melting point. The concentric sheath/core process is also applied to produce fibers with a quality, higher-price core with a weaker external polymer outer layer. Combinations can include:

- Polyester Core *(250C melt point)* with Co-polyester Sheath *(melt points of 110C to 220C)*
- Polyester Core *(250C melt point)* with Polyethylene Sheath *(130C melt point)*
- Polypropylene Core *(175C melt point)* with Polyethylene Sheath *(130C melt point)*

Most commercially available bicomponent fibers are configured in a sheath / core, side-by-side, or eccentric sheath / core arrangement.

- Concentric (side by side) - Excellent bonding strength and softness
- Eccentric (cross section) - Offers increased bulk and enhanced resiliency

Bicomponent Fiber Advantages

Bicomponent Fiber Advantages

- 100% fiber
- Thermal bonding
- Self-bulking
- Extremely fine fibers
- Distinctive cross sections
- Characteristics of special polymers or additives at reduced cost
- Uniform distribution of adhesive
- Fiber remains a part of structure and adds integrity
- Customized sheath materials to bond various materials
- Wide range of bonding temperatures
- Cleaner, environmentally friendly (no effluent)
- Recyclable

Products that Benefit from Bicomponent Nonwovens

- Infant diapers
- Training pants
- Incontinence products
- Feminine hygiene products
- Hospital underpads
- Wound care and absorbent bandages
- Diabetic absorbent wound dressings

Your Domestic Source for Bicomponent Fiber Nonwovens

As a supplier of bicomponent fiber nonwovens, WPT Nonwovens is highly experienced and fully equipped to meet your needs. With our new facility and spooling line up and running, we are positioned to meet the growing demand for domestically sourced quality bicomponent fiber nonwoven fabrics.

As a nonwovens supplier located here in the U.S., WPT Nonwovens offers you many domestic supplier advantages including:

- Ability to provide a sample within 30 days
- Production and shipment of your order within four to six weeks
- Extensive experience in developing nonwoven polyester fabric
- Unsurpassed customer service
- A fully capable manufacturing facility located in Beaver Dam, Kentucky

WPT Nonwovens is also positioned to serve not only high volume needs, we are also happy to fill small, niche orders.

Contact WPT Nonwovens, today!

www.wptnonwovens.com

800-276-5592