

## Felt Information Series

### Felt: fiber

Let's talk about fiber, the foundation of all textiles. Dietary fiber helps our digestion and optical fibers transmit light. If we touch, our nerve fibers are stimulated. In textiles, a fiber is a strand of material that can be *natural*, *manufactured from natural materials*, or *synthetic*.

**Natural Fibers.** The Federal Trade Commission (FTC) states that a "natural fiber" refers to any fiber that exists as

such in the natural state. That includes fibers from plant sources and animal sources, of which **wool** is the most popular.



**wool fiber**

National Nonwovens uses wool from the Merino breed of sheep in all its WoolFelt® product lines. Merino wool is regarded the

finest according to strict industry standards because it has a luxurious softness compared to coarser grades of wool.

#### **Manufactured Fibers from Natural Materials.**

These fibers are plant-based or cellulosic. This category is complex and often confusing to consumers because of the "natural" and "manufactured" classifications. National Nonwovens manufactures felt using two types of manufactured fibers that derive from natural materials: rayon and bamboo.

**Rayon**, primarily made from wood pulp, was the first manufactured fiber and the textile industry adapted it as the term for all organic viscous fibers. It has many appealing properties such as superb softness and drape. When National Nonwovens blend rayon and wool together, the best characteristics of both fibers are utilized. As a result, our WoolFelt® blends are enormously popular and are typically preferred over other felts because of their versatility and value.

#### Fibers - Craft & Hobby Felt Products

##### Natural Fibers

##### WOOL

(WoolFelt)

*WoolFelt is made from Merino sheep, the highest grade wool*

##### Manufactured Fibers - Natural Materials

##### BAMBOO

(XoticFelt)

*Bamboo fibers come from the pulp of bamboo plants*

##### RAYON

(blended felts)

*Cellulose fiber, primarily made from wood pulp*

##### Manufactured Fibers - Polymers

##### ACRYLIC

(FiestaFelt & GlitzyFelt)

*Synthetic fiber made from chemicals*

**Bamboo fibers** are made from the pulp of bamboo plants. This specialty cellulosic fiber is classified as rayon by the FTC. Bamboo fibers are extremely smooth and soft. National Nonwovens' XoticFelt®, made from bamboo fibers is noticeably softer than other felts. It also uniquely absorbs dyes for luxuriously rich and vibrant colors.



**bamboo-rayon fiber**

**Synthetic Fibers made from Polymers.** Felt in this category typically include acrylic, polyester, or nylon fibers. Acrylic is the highest quality of all the fibers in this class and is what National Nonwovens uses in its FiestaFelt® and GlitzyFelt product lines. Acrylic fabric is lightweight, washable, and inexpensive compared to felt products made from natural materials.

## Fiber: *Expertise*

National Nonwovens has hundreds of different nonwoven products in highly engineered technical markets with unique fiber constructions. To be successful with this extreme diversity, an expansive fiber inventory and fiber library is crucial. Pictured here is part of National Nonwovens fiber library showing 100 different types of fiber samples



## FYI: *Nonwovens?*

A **textile** is any cloth or goods produced by weaving, knitting, or felting. Nonwovens are textiles most easily defined by how they are NOT MADE. They are not made by weaving or knitting and do not require converting the fibers to yarn.

**Nonwoven fabrics** are sheet or web structures bonded together by entangling fiber or filaments mechanically, thermally, or chemically.

Felt is classified as a nonwoven, but so are many other high-tech, engineered materials used across a wide range of applications from medical to aerospace.



**Technical Nonwovens**  
Nonwoven production line at National Nonwovens

## Felt: *wool*

We are all wild about wool, and with good reason. Wool is a natural, environmentally-friendly fiber that can absorb up to 30% of its weight without feeling heavy or damp. It is a durable, natural insulator that resists mildew and mold while being hypo-allergenic. What's more, it's wrinkle resistant and fire retardant while resisting static, dirt and dust.

Although wool is obtained from a variety of animals, wool from Merino sheep is considered the best. According to Australian Wool Innovation (AWI), a not-for-profit company, Australian Merino wool is soft and sensuous with unsurpassed natural drape, elasticity and breathability. It is much finer than other types of wool, with 50% of the clip 20 micron or finer. Such fineness means Australian Merino wool is flexible and softer than other types of wool\*.

At National Nonwovens, we use only Merino fiber in our wool products. In addition to our popular felt product lines for the Craft, Home Decor, and Quilting Industries, we have a comprehensive line of medical, aerospace and industrial products lines. The products require the highest quality wool and medical-grade rayon available. We use the same high-grade fiber in all our WoolFelt® lines.

National Nonwovens has a variety of Merino wool felts to fit any budget, with a range spanning from 100%

wool to 20% wool/80% rayon. We have spent decades formulating our unique wool-rayon blends to precisely run on our top-of-the-line specialized equipment so the strengths of both the wool fibers and rayon fibers can be fully realized. The result is a luxurious hand and unique shades, some with heathered hues, that simply can't be duplicated by competitive products.



### **Merino Wool, Best in Industry**

National Nonwovens purchases large containers of Merino wool and uses the high-end fiber to make products in multiple industries, including Craft & Hobby and Medical.