Purification Made Simple

After cotton is harvested from the fields and is initially cleaned in the ginning process, it must be further cleaned and prepared for its use in the production of nonwoven and unspun applications. The processes for this stage of cleaning typically involve further mechanical cleaning to remove finer pieces of stem, stalk, and leaf and extraneous field matter as well as processes to remove potentially harmful bacteria, molds, and other contaminations from the fiber. The specific technologies and sophistication of the processes used in cleaning the fibers will differentiate the product's final level of quality and usefulness. Methods vary from supplier to supplier, some will use mechanical cleaning alone or add a sterilization process at the end. But there's only one way to get cotton to its cleanest, whitest state that's preferred by consumers worldwide, and that's through a process called purification.

At Barnhardt Purified Cotton, we are the leader in cotton processing for a wide variety of industry applications, from baby and personal hygiene products to medical and dental uses. With market leadership comes a responsibility, to continuously seek higher standards for our products and how we make them. While this leadership touches in many areas like sustainability and the variety of finishes on offer, perhaps no other aspect of what we do is as important as the process of purification, a concept we launched a generation ago.

As we have improved the purification process over the last 30 years, we have focused on the areas where we think we can make the biggest difference, not only in the look and feel of cotton products, but also in performance and sustainability.

While one of our previous breakthroughs made our purification process totally chlorine-free (TCF), we recently challenged our team to devise a comprehensive new process for all the work needed to purify cotton to the levels consumers have come to expect from their baby and personal hygiene products. For years, these products have been manufactured using synthetic or manmade materials which are by design clear of the challenges a natural fiber like cotton faces (i.e. the stalk, stem or leaf). However, today's consumers are far more environmentally conscious than the past, it is not enough to have products that are cheap and perform, but instead, they need to perform without potential harm to the person or the world around us. This is largely what is driving much of the continuing trend of consumers seeking and demanding more natural fibers in products we use every day.

Now, with the advent of our new EVŌC process, we have a process that's elegant in its simplicity—it's purification made simple. The foundation of EVOC is first in mechanical cleaning of the field cotton that arrives in bales at our plant, and then in the washing of the fiber produced from the mechanical process.

Each of the two foundations—mechanical cleaning and liquid washing—is a multi-step process. During the first phase, we go the extra mile to eclipse all other standards for cleaning cotton. While others can say they remove the harmful bacteria and fungi normally inhabiting field cotton, we go to a higher standard, removing all extraneous matter, both plant-based (stems, stalks) and foreign (plastic, metals, objects from nearby roadways.

In the second part of our process, we take washing to a new

level as well, achieving the finest ultra-white coloring that consumers expect from personal and hygiene products, such as tampons, liners, diapers, and wipes. While we don’t use harsh chemicals or complex detergents, we wash our mechanically-cleaned field cotton much as you would wash your clothes at home. We use simple methods just strong enough to get the job done, with products that remove the natural oils and waxes from the plant fiber through this wet process. Our cotton is whiter, and contrary to popular misconception, we don’t use bleach to achieve purified perfection.

While we use a lot of people and a lot of big equipment, our purification process, at an elemental level, is just as simple as how you’d clean dirty fabrics in your own home. You’d use your hands or some kind of implement to get the solid objects off, you’d use some sort of liquid and cleaning agents to get out grease and stains, and you’d use yet another chemical wash for colorfastness.

Purification, Barnhardt’s contribution to the world of cotton, has made having truly great cotton products look easy.