

The Case For Cotton

A baby is lying on a bed of white cotton wool. The baby is wearing a white diaper and is smiling. To the left of the baby is a green plastic container with a giraffe illustration. In the center, there are two large stacks of white cotton pads or wipes. To the right, there is a package of baby wipes with Arabic text and a yellow and purple design. The background shows a white pillow and a white sheet.

A number of market factors are converging together to expand the use of cotton in the disposable wipes market

by Karen McIntyre
Editor

otton. It's hard to argue against its reputation for purity, softness and cleanliness. And, with organizations like Cotton Incorporated and the National Cotton Council constantly marketing these attributes through various media, most Americans begin making associations with the cotton fabrics early on. Whether in the softest baby blanket, an old worn T-shirt or a trusty old cotton ball, cotton is simply the fabric of our lives.

One area where cotton's advocates have had some challenges moving the fabric is in the disposables market where the fiber's high cost and unpredictability have made it a tough sell to makers of such products as baby diapers, feminine hygiene products and wet wipes. Instead these products have traditionally been comprised of more cost-efficient synthetic fibers such as polypropylene and viscose. Additionally, machinery investments to make operations cotton capable have been perceived as obstacles.

"A challenge in getting cotton used in nonwoven fabrics is the industry idea that cotton will not process on nonwovens equipment," said Chuck Allen, technical accounts manager of BBA Natural Fibers. "This is a myth because cotton can run very efficiently on the same equipment that is running synthetic fibers with some changes in machine settings and making sure that the fiber finish is appropriate for the processing system."

In fact, manufacturers of spunlaced nonwovens equipment have been among cotton's biggest proponents. Fleissner, Egelsbach, Germany, recently supplied a cotton-capable spunlace line to bleached cotton supplier Ihsan Sons. The Lahore, Pakistan-based company intends to make medical and wipes products using cotton.

According to Alfred Watzl, sales manager of Fleissner, cotton's high absorbency and good fabric-like structure make it suitable for these applications. "The main cause for cotton being particularly ideal in spunlacing is the low wet modulus of the fiber allowing it to easily react to the water jets," he said. "Moreover, cotton does not have a round smooth fiber cross-section. This results in additional frictional resistance, which improves fiber adhesion after fiber entanglement. The use of unbleached cotton

for the spunlace process offers advantages. The fiber is cheaper than a bleached quality and the spunlace process removes substances such as oils or wax from the fiber so that later the fiber can be more easily bleached, dyed or finished." However, the filter system of the spunlace line must be designed accordingly, and Fleissner has developed a special system for this purpose.

Rieter Perfojet, also a machinery supplier, has been working on cotton's integration into spunlaced nonwovens as well. "Due to its nature, cotton fibers were troublesome to the filtration system," said André Michalon, sales director. "Rieter secured the filtration process with specific sand filters in order to improve the runnability of lines and nowadays filtration for cotton nonwovens is fully satisfying."

Also influencing cotton's role in wipes is pricing for polypropylene and viscose, which have been driven up by rising petroleum costs, closing the gap between them and cotton and attracting the attention of the disposable wipes market, where manufacturers are keen on diversifying their product from the competition. Additionally, marketing agency Cotton Incorporated has come out with a new cotton-enhanced seal label where products can be endorsed with a cotton seal if they contain 15% or more cotton by content. This has allowed consumer product companies to reap the benefits of cotton at much lower levels. Previously, a 60% level was required for the designation.

And, already at least one major wipes converter has benefited from this new designation and is set to launch a baby wipe containing cotton this fall. Industry experts expect this launch to be followed by other new products after more marketers realize that consumers are really willing to spend more for cotton.

Why Wipes? Why Now?

Leading cotton's emergence in the wipes market is consumers' overwhelming preference for cotton in their personal care products. In a study conducted jointly by Barnhardt and ACNielsen, more than half of 500 respondents incorrectly assumed that some brands are already made with cotton, and, when told

Karen McIntyre is the editor of NONWOVENS INDUSTRY.



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that no major wipes brand uses cotton, more than half indicated they would like to see one become available. The consumer study further indicates that the majority (80%) view cotton's key attributes—soft, natural, absorbent and less irritating—as the appeal of baby wipes with cotton.

This appeal is driven by a perception that the product would be “soft,” and to a lesser extent, “natural” and “less irritating.” In fact, 85% of mothers, unprompted, believe that cotton-containing wipes would boast these attributes.

A majority of mothers (79%) indicated that “natural fibers” are preferred and 63% of the mothers said they expect to pay more for baby wipes that contain cotton.

The feedback from this survey group suggested that an acceptable price point for a baby wipe with cotton should be at the same level or a few cents more than the cost of the upper-end premium brands, according to reports.

“We know from cotton industry studies that consumers are increasingly searching for products made with natural ingredients and that the opportunity exists for a manufacturer to meet this growing demand in the nonwovens industry,” said George Hargrove, vice president of sales and marketing at Barnhardt. “We engaged this study to better examine the attitudes and behavior patterns of consumers to determine if, given an alternative, they would choose

to purchase a baby wipe with cotton.”

While this study, commissioned in early 2004, did start the ball rolling for cotton in the wipes market, other factors have played a role. Viscose pricing, for one, caused by supply shortages, has made the price of cotton less prohibitive. And, the decision of some spunlace producers to make their operations cotton capable has created more opportunities. Currently, only PGI Nonwovens and Ahlstrom can make cotton spunlace but new lines announced by Israel's Spuntech and Europe's Jacob Holm would be able to run cotton, according to reports. Beyond that, other existing spunlace manufacturers are said to be incorporating cotton into their production lines.

“Our customers are all interested in using cotton as long as there was no price implication,” said John Michaud, vice president/general manager of wipes—The America for Ahlstrom. “Previously there was a large gap in the cost of cotton fibers versus rayon and polyester. With the run up in cost of these fibers, the price gap has narrowed and opened the door for cotton. The door will be open as long as the price difference is.”

“People have been gun-shy of running cotton in the spunlace market,” Mr. Hargrove said. “There is a perception of higher costs or incompatibility with fiber preparation areas and a lack of the correct filtration systems, but that is finally changing.”

While the purity of cotton will help its success in the baby and other personal care wipes markets, it also features a unique scrubbing feature that makes it attractive to the household cleaning market. Meanwhile, in medical applications the absorbency of cotton is shaping its role in wound care, gauze and sponges.

Pakistani cotton supplier Ihsan Sons, in fact, is so confident of cotton's spot in wipes, it has announced plans to install a Fleissner spunlace line, capable of producing 3000 tons of material annually for the wipes and medical markets in Europe and North America. The new line will come onstream by the end of 2005.

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No one has welcomed this buzz on cotton in the wipes market more than Cotton Incorporated. "I couldn't be happier with the convergence of the market for wipes, stimulated by a need for more absorbent materials, interest from roll goods makers and consumer preferences," said Janet O'Regan, director of nonwovens marketing for Cotton Incorporated. "Many market forces have truly come together to give cotton a better presence in the nonwovens industry."

Cotton Incorporated worked with both end users and nonwovens makers to establish the new cotton enhanced seal of approval program where wipes containing 15% cotton would be branded with the cotton logo. Ms. O'Regan said that even when combined with other materials, cotton could provide value to the end product. For instance, at 15%, improvements include improved softness, better retention and improved wet strength. "Requiring the level to be 60% might be too high. Just including some cotton can help create a whole new mindset on both the technical and economical side of things," she added.

Leading The Way

To date, only one major wipes manufacturer has firmed up plans to market cotton-enhanced wipes. Private label supplier Nice-Pak has developed a cotton-enhanced baby wipe for club retailer Costco, which is set to be launched this fall. According to Nice-Pak executives, the inclusion of cotton was a good way for its customer to differentiate and add value to their baby wipes, which has become an important strategy in fending off competition in this commodity market. "We are always looking for ways to develop innovative, premium products," said Cheryl Moran, category director of Nice-Pak. The Orangeburg, NY-based wipes manufacturer has a history of delivering innovation to the wipes category, and develops products that are equal to or better than national brand competition.

According to Costco literature, the cotton enhanced wipe is significantly stronger and more tear-resistant than other national brands. The added

cost of a cotton wipes can be compensated for with these attributes. Additionally, overwhelming evidence supports the notion that consumers are willing to pay more for products containing cotton.

And, at 15% content, adding cotton to the substrate allowed Costco to reap a number of cotton's benefits with a modest increase in costs. In fact, some would argue that increasing the content beyond 15% would not exponentially improve these benefits.

There is no doubt that the wipes industry, and the nonwovens industry, in general, will be watching this Kirkland launch closely. Nice-Pak competitor Rockline Industries tends to follow the activities of major brands and since no major brand has launched cotton wipe, it so far has no plans for such a product, according to marketing manager Carmen Baker. And, while major brands such as Procter & Gamble and Kimberly-Clark could not be reached for comment, industry sources claim that these giants have been gun-shy when it comes to cotton because of the cost factor. Still, success on the private label front, joined with other market conditions, could change this mindset.

This is why many of North America's major spunlace producers are making sure they are able to run cotton. Executives at nonwovens producer PGI, for example, described efforts concerning cotton "as only at the beginning." The company's multidimensional Apex technology, developed around multifiber technology, is ideal for cotton conversion. "Apex's performance attributes and its three-dimensional structure are nicely enhanced by cotton," said Mike Disotelle, senior director, North America consumer and specialty wipes, at PGI. "The product is softer and much more absorbent than viscose-based products."

While PGI has been processing cotton in more durable applications, such as robes and blankets, for some time, it has only recently begun producing cotton-enhanced nonwovens at low enough basis weights for the wipes market. "We have positioned ourselves perfectly for the wipes market," said Mr. Disotelle. Last year, the company earmarked 40,000 tons of its Apex output for the wipes market.

Will The World Follow?

As cotton wipes gain more acceptance in North America, their potential around the world is mixed. In Japan, the use of cotton in nonwovens has been led by roll goods producer Unitika with its Cottoace spunlace product and cotton-based wipes have been penetrating the market for some time. Meanwhile, the European market, which is a little more cost sensitive than North America, has seen limited activity. According to industry observers, German skin care specialist Beiersdorf had been selling baby wipes containing cotton at one point but this product did not receive much fanfare. Part of the reason for this limited acceptance is Europe has no agency like Cotton Incorporating promoting the use of cotton in wipes. "There are a lot of price pressures and wipes companies are not willing to commit to long-term projects," said Michael Norboge, vice president of personal and home care, Jacob Holm Industries. "Also, the Cotton Incorporated seal of approval is more effective than in Europe. There really is no equivalent to this in Europe."

While Jacob Holm has not participated in any large-scale cotton-related projects, it is able to run the material in its facilities in Germany, France and the U.S., which requires the right carding configuration as well as a proper water filtration system in spunlace lines. The change in systems makes cotton more expensive to process than its synthetic competitors, even if the raw material prices are comparable, because the process is slower and the capital expense greater.

Still, Mr. Norboge agreed with other industry experts who predict that cotton will continue to find its way into more wipes, particularly in the baby and personal care segments, led by consumer awareness and the efforts of cotton proponents. "My personal belief is that response in the U.S. to the new Cotton Incorporated seal is going to be moderate to strong. We will see interest from private label and branded marketers," he said. "This will depend on marketing efforts made by Cotton Incorporated surrounding initial launches."