

## Raw Material Round Up

By Karen McIntyre, Editor | June 9, 2016

Suppliers to nonwovens manufacturers continue to innovate.



### Eastman Continues to Improve Cyphrex Microfibers

According to John Woods, general manager of [Eastman](#)'s microfibers business, Cyphrex microfibers have been developed to satisfy a diverse set of performance needs for increasingly demanding nonwoven applications—especially those in which wetlaid nonwoven and specialty paper producers can benefit from improved strength, uniformity, and reproducibility. Customer-specific development is in progress across a variety of potential end-uses – including, but not limited to, filtration, packaging, highly-durable papers, wallcoverings, and batteries.

“Since the initial launch in 2013, we have continued to expand our portfolio of Eastman Cyphrex microfiber products. We have driven this through the pairing of continued advancements in our world-class technology and proprietary microfiber processes—a technology which enables microfibers comprising of unique combinations of sizes, shapes, and materials—with needs and insights gained from external market connect across the nonwoven and specialty paper value chains,” Woods says.

He adds that the need for innovation within the nonwovens industry drives customers to continually seek new material inputs which allow them to access differentiated performance in their products without requiring that they make significant process and/or operational changes to

do so.

“Eastman Cyphrex microfibers continue to demonstrate themselves to be just such a material,” Woods continues. “As previously mentioned, our customers are typically seeking novel materials with inherent functional benefits which help them to develop differentiated nonwoven products. Often, however, those new materials can bring with them performance trade-offs. For example, a fiber which contributes significantly improved strength and durability to a nonwoven, may come at the expense of the uniformity (or even processibility) of the product. “

Because Cyphrex microfibers integrate easily into existing wet-laid processes, this can significantly broaden the design capabilities of the nonwoven producer—thereby allowing them the opportunity to develop a next generation of performance nonwoven materials.

Mark Clark, technology director, Microfibers Platform, Eastman Chemical Company, says that Eastman Cyphrex microfibers have, without question, offered nonwoven producers a novel raw material input to consider for new product development.

“New materials, particularly ones somewhat related to an old material (specifically, synthetic fibers) which has created formulation and manufacturing challenges in the past, will be assumed to bring with them at least similar such issues—if not more of them,” he says.

Through investment in both hardware (i.e. paper/nonwoven making equipment) and software (i.e. experience wetlaid nonwoven and paper scientists), Eastman has, as a microfiber supplier, built an application development competency which not only helps to clearly demonstrate the value created in-use by its unique materials but also provides its customers with access to knowledge and expertise related to how they can best utilize these microfibers in their designs and operations.

After launching the Eastman Cyphrex microfibers platform with a pair of differently-sized round microfibers, specifically Cyphrex 10001 and Cyphrex 10002, which initially targeted filtration applications, ongoing conversations with leaders in the nonwovens industry suggested a need for a synthetic fiber that could be compatible with an added value to materials with a high content of cellulose pulp – i.e. so-called specialty papers.

The outcome of those conversations and significant development efforts – both fiber-related and nonwoven-related using Eastman’s product and application development expertise – has been Cyphrex 10101. This 0.4 denier PET fiber with a unique flat cross-section actually looks quite similar to the cross-sectional shape of a cellulosic fiber.

Consequently, it is quite compatible with cellulosic materials – both in a nonwoven or paper roll goods and also, perhaps somewhat surprisingly for a synthetic fiber, in the nonwoven wet end. It is this combination of product and process functionalities which can allow the nonwoven producer to access significantly enhanced uniformity, strength, durability, and processibility in order to meet the increasingly-strenuous demands of their customers’ applications.

- See more at: [http://www.nonwovens-industry.com/issues/2016-06-06/view\\_features/raw-material-round-up/#sthash.kRlwRUkS.dpuf](http://www.nonwovens-industry.com/issues/2016-06-06/view_features/raw-material-round-up/#sthash.kRlwRUkS.dpuf)

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