

Milliken and PureCycle advance circularity by launching new concentrate using recycled PP resin

Milliken & Company, a trusted expert in polymer additive and colorant technology, and diversified global manufacturer, and PureCycle Technologies, Inc. (NASDAQ: PCT), jointly announced that they have created the first fully sustainable concentrate for PP on the market. This development advances circularity, since the concentrate based on PureCycle materials will allow for greater use of 100% recycled content. Additionally, when used in combination with PureCycle's recycled PP, it produces a formulation with a carbon footprint (GHG) approximately 35% lower than that of virgin PP.

The new concentrate has been formulated using Milliken's Millad® NX® 8000 ECO clarifier. As an added benefit, the certified energy savings realized by using resin produced with this clarifier allows brand owners to display the much-desired UL Environmental Claim Validation label on their injection-molded parts.

In a press panel at the K 2022 fair in Düsseldorf, Dustin Olson, Chief Executive Officer of PureCycle, and Wim Van de Velde, Global Vice President of Plastics Additives at Milliken, provided an update on their companies' collaborative efforts since the partnership began in 2019. Today's announcement of the first odorless concentrate for PP based on a recycled resin carrier was a direct result of that collaboration.

Headquartered in Florida, PureCycle's patented recycling process was developed and licensed by The Procter & Gamble Co. The game-changing technology separates color, odor and other contaminants from PP waste feedstock to transform it into ultra-pure, virgin-like resin.

Milliken's technical leadership and top-tier additives play a critical role in reinvigorating recycled polypropylene (rPP) for PureCycle. By providing a backbone of support through the principal scientist role, and across their broader R&D team, and by establishing an exclusive supply relationship with PureCycle, Milliken is helping to address the plastics end-of-life challenge.

Purposeful innovation for a "no-compromise" solution
concentrate resulting from this partnership is

proof that Milliken's mission of working together for tomorrow can lead to moving the industry forward in its goals for circularity. It also aligns



with the company's stated goals to advance the circular economy through chemistry. In this case, because the new concentrate enables the production of parts that are free of odor and color, it makes using rPP an attractive option for PP converters as it can be used in various applications, provides the same high quality as virgin PP and has crystal clear clarity.

"Milliken has been a steadfast partner for PureCycle since the very early days," Olson noted. "For a startup company like ours with groundbreaking technology, we needed their help to set our technical foundation. Their expertise and commitment to understand, grow and develop our product is a differential factor in this partnership."

Olson stressed that PureCycle is developing a "no-compromise solution" that is designed to deliver high-quality polypropylene resin for a wide spectrum of applications, along with a good carbon footprint — both of which he says are important when innovating in a new space like sustainability. In addition, customers using PureCycle's product should not need to adjust their operations to accommodate it. This offers a distinct advantage compared with using alternative recycled material, which typically requires the customer to make color or formulation adjustments to get an acceptable end result.

From collaborative vision to global reality

PureCycle is currently scaling its production capabilities. In addition to completing its first plant, in Ironton, Ohio, the company has announced it will install two lines at a new plant it is building in Augusta, Georgia. It is also establishing a partnership in South Korea, with plans for another partnership in Japan.

"Our global growth is good for the planet and good for consumers," Olson said. "We have a special product that can change the world of recycling, and we are executing on our strategic plan to deliver this product to the world, because the world needs it."

Van de Velde added: "Sustainability is a key pillar and our focus as an organization. The concentrate we announced today is just the beginning. With our technical expertise, we will continue to innovate and bring in new technologies and sustainable solutions to enable our customers to grow. We know that continuing to work with PureCycle and supporting their solution can help the industry move towards where they need to be in the next 10 to 15 years."

Olson said: "This partnership is proof that when you have groups of people working collaboratively together with a similar vision they can execute results quickly to meet industry commitments. What we like about Milliken is that they don't represent only one additive. They have other technologies that help boost sustainability. Three years ago, we announced what we would do together in this partnership, and now we are doing it."



To learn more, visit Milliken in Hall 6, Booth A27 at the K Show or k2022.milliken.com, or check out PureCycle online at www.purecycle.com.

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