

Huhtamaki, Milliken partner to design for circularity

Joint research yields highly recyclable, mono-material HDPE tube

Milliken & Company, a trusted expert in plastics additive and colorant technology, is partnering with Finnish flexible packaging giant Huhtamaki Group to develop a more sustainable, mono-material laminate for use in tubes targeting cosmetics, toothpaste and other personal-care applications.

The results of this joint effort, designed to create a healthier future, will be on display at the K 2022 trade fair in Dusseldorf from October 19-26. Milliken will display high-density polyethylene (HDPE) tubes produced using Huhtamaki laminates optimized with Milliken UltraGuard™ Solutions technology, at our booth (Hall 6 Booth A27). Executives from the two firms also will participate in a TechTalk presentation at the show on Tuesday morning, Oct. 25 (from 10:30-11:00 a.m.) at Milliken's Gallery (Hall 6, Gallery 10-05).

With the market's keen focus on recycling and circularity, it is more vital than ever to find technologies that can eliminate the typical metalized (usually aluminum) layers while maintaining the necessary barrier properties, especially against water vapor and oxygen transmission needed in

personal-care applications.

By improving the barrier properties of HDPE film by up to 50 percent, UltraGuard Solutions contribute to sustainability by enabling more mono-material construction of popular products such as stand-up flexible pouches and tubes and making them ultimately more recyclable. These improved barrier properties also allow for downgauging of the polyethylene (PE) film, resulting in a lighter-weight end product and a reduction in the amount of resin needed to achieve the desired result.

Huhtamaki's work on this project fits in perfectly with its blueloop™ initiative for sustainable, flexible packaging. Huhtamaki blueloop is a product portfolio aiming to make flexible packaging circular by introducing a range of recyclable solutions with mono-material structures using polypropylene (PP), PE and paper. The blueloop program contains recyclable and sustainable laminate solutions, with dedicated criteria, to ensure the resulting mono-HDPE-laminate is fully recyclable and approved by RecyClass.



“The tube resulting from this joint development work is opaque with a silver shine, making it ideal for beauty product applications,” said Dr. Detlev Schulz, Senior Manager - Sustainability and Business Development for Huhtamaki’s Global Tube Laminates business. “White would work as well, offering outstanding moisture barrier and improved oxygen transmission for all who don’t need a shiny silver option.” The most likely end uses will be in 40 to 200 ml tubes.



For more information on Milliken’s purposeful collaborations, visit Hall 6 Booth A27 at the K Show or k2022.milliken.com.

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