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## Increased sustainability set for materials firms at K 2022

By Frank Esposito  
Plastics News Staff

DuPont Co., DSM Engineering Materials and Polyplastics Group are among the materials firms in the spotlight at K 2022, Oct. 19-26 in Düsseldorf, Germany.

DuPont's Mobility and Materials unit will focus on sustainable materials and application developments, officials with the Wilmington, Del.-based firm said in a news release. New developments touted by DuPont include materials for sustainable solutions, automotive electrification, robotics, consumer electronics, sporting goods and footwear.

DuPont's booth at K 2022 will include Future Lab, a section of the stand where designers and engineers can find eco-friendly solutions that are new or have yet to be introduced to the market. These materials include Hytrel ECO B-brand thermoplastic elastomers made with biomass; Rynite-brand PET based on post-consumer recycle; low-density Zytel-brand nylon; and foamable grades of Hytrel for weight reduction.

Officials said Hytrel ECO B delivers performance equivalent to Hytrel grades made from fossil feedstock but with biomass content up to 72 percent by weight. In the auto sector, DuPont will feature DuPont Chemical Bonding, a patented technology that simplifies manufacturing via direct nylon-aluminum joining. Officials said that process produces higher bond strength but is "a common challenge" for automotive and industrial components.

In running shoes, standard and foamable Hytrel is being used in filament uppers, insoles, midsoles and outsoles. One DuPont customer recently launched patented, foldable swim fins, thanks to an upgrade from Hytrel ECO B.

### DSM launching more sustainable resins

At K 2022, DSM Engineering Materials is launching a new, more sustainable version of its flagship Stanyl-brand nylon. Stanyl B-MB (bio-based, mass-balanced) has up to 100 percent bio-based content. The new material uses the maximum possible levels of biomass waste feedstock and allows DSM to cut the carbon footprint of the material in half, officials with DSM in Geleen, Netherlands, said in a news release. DSM plans to have bio-based and/or recycled-based alternatives for its entire portfolio by 2030.

"With both consumers and regulators demanding more sustainable materials, the launch of [Stanyl B-MB] is an important step forward for our industry," Engineering Materials President Roeland Polet said.

"We are fully committed to developing sustainably sourced products with a reduced environmental impact," he added.

DSM EM also announced that Samsung Electronics is using Aku-

lon RePurposed-brand nylon in a smartphone device for the first time. The material is made by DSM from repurposing discarded fishing nets collected from the Indian Ocean. The new Galaxy S22 series smartphones and Tab S8 series tablets "underline DSM's commitment to enabling a circular economy through recycled-based innovation," officials said.

Samsung Materials R&D Manager Pranveer Singh Rathore said that through the open collaboration with DSM, Samsung "successfully developed a solution that bridges the needs of the planet and our Galaxy users."

### Polyplastics expands its portfolio

Polyplastics of Tokyo will highlight its expanded product portfolio and material supply capabilities at K 2022. Officials said the firm's Duracon-brand acetal, Laperos-brand liquid crystal polymer (LCP) and Topas-brand cyclic olefin copolymer lines address demanding end-use requirements in the medical, electrical/electronics and automotive industries.

Polyplastics has expanded LCP sales to the Europe, Middle East and Asia region and the Americas while making timely investments in capacity to better respond to market growth, officials said. The firm's Technical Solutions Center in Raunheim, Germany, officially opened in April. The site serves the technical support needs of its growing customer base in Europe.

Polyplastics also is building a new acetal plant in Jiangsu Province, China, which will open with annual production capacity of almost 200 million pounds, with that number later increasing to more than 300 million pounds. The new capacity will meet growing demand for acetal, improve lead times and reduce transportation costs, officials said. Initial start-up is expected in November 2024.

In new materials, Polyplastics' long-fiber thermoplastic resin is made of specially formulated regenerated cellulose fibers. The eco-friendly material provides weight reduction plus mechanical strength, officials said, enabling manufacturers to reduce their carbon footprint and meet sustainability demands.

In 2020, Celanese Corp. of Dallas ended the Polyplastics joint venture by selling its share to partner Daicel Corp. of Tokyo for almost \$1.6 billion in cash. Celanese had a 45 percent stake in Polyplastics, which makes specialty plastics including acetal, polyphenylene sulfide and LCP, since 1964.

Polyplastics operates two plants in China and plants in Japan, Malaysia and Taiwan. The business also operates two plants in Germany — one making specialty polymers and one making specialty chemicals. According to its website, Polyplastics has annual acetal production capacity of almost 700 million pounds.



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