

Packaging

Food-grade PET with integrated rPET supports supply, quality and Sustainability

Local, national and multi-national beverage brands are increasingly keen to boost the sustainability of their packaging, with vocal commitments driven by ambitious targets for environmental and economic performance.

With such a high demand for more sustainable packaging solutions, the challenge for converters and brands is often reliability of supply; wanting to do more of the right thing isn't always possible if the product isn't available in the first place.

'Closing the loop' is a phrase that represents the scientific approach to a circular economy for the plastic packaging industry, with the focus on making sure sustainable packaging solutions are reliably available by cutting waste, efficiently recycling, and effectively reintegrating post-consumer waste, particularly from single-use plastics.

Lithuania-based UAB NEO Group, manufacturer of polyethylene terephthalate (PET) resins, is one of Europe's leading producers of high-quality PET resins and polyols, and part of the multi-national plastic packaging producing group's RETAL Industries Ltd. NEO Group's most recent new product development sees it harness many years of expertise in glycolysis processes with the production of aromatic polyester polyols to create a future-focused solution to this closing the loop conundrum.

Food grade and sustainable

NEOPET Cycle is food contact PET with rPET flakes integrated directly into the virgin resin material, offering a transparent solution free from contamination. Explained as 'a partial replacement of fossil-based raw materials with purified rPET flakes for the production of NEOPET Cycle resins', this easy-to-use product ticks many sustainability boxes.

Ruslanas Radajevas, General Manager at NEO Group, explains how the product has been created, saying, "The production of our

NEOPET Cycle is based on a chemical depolymerization process using feedstock from post-consumer PET food packaging collections. This production uses two different raw material streams, both standard raw materials and rPET flakes. After the paste preparation, liquified rPET flakes are added into the first stage esterification. Our fully integrated process of adding flakes directly into the polymerization stage of virgin resin materials means that NEOPET Cycle is in total compliance of EU and FDA food contact requirements, with no EFSA approval needed."

This extensive technical capability and deep understanding of the need for a sustainable food-contact raw material is good news for NEO Group's customers, which include sister company RETAL. RETAL regularly uses NEOPET Cycle to produce plastic packaging solutions for its global beverage brand customers, who appreciate the consistent quality which is as a result of the extremely strict filtration technology.

RETAL EU Purchase Director Arturas Scerbakovas says that reliable quality is the most important benefit of choosing NEOPET Cycle. "Quality is the biggest advantage as chemically recycled PET is much more stable in terms of quality than mechanically recycled. Chemical recycling improves the clarity of resin, plus the intrinsic viscosity is the same as virgin PET.»

RETAL's household name beverage brand customers appreciate the reliability of supply too, thanks to the preferential supply offered thanks to be part of the same holding group. RETAL EU Purchase Director Arturas Scerbakovas says, "NEO Group is a sister company to RETAL, so we are pleased to have preferential supply; this is especially beneficial at a time when continuity of supply of raw materials is a challenge for some converters. To be able to guarantee a sustainable solution for our customers is very welcome!"



Ruslanas Radajevas, Neogroup CEO

Help close the loop

The ease in which NEOPET Cycle helps close the loop is welcomed by every stakeholder across the packaging supply chain and throughout the beverage industry as a whole, with sustainable plastic packaging valuable for the continued success of the convenience sector, without unnecessary environmental impact.

Radajevas shares how NEOPET Cycle helps to close the loop, explaining, "Integrating rPET supports closing the loop and the circular economy by creating less plastic pollution, fewer CO2 emissions, and having less dependence of oil reserves. NEOPET Cycle helps converters to help their food and beverage brand customers to meet their sustainability targets too. It's a very logical solution – it just needed expertise to make it a reality!"