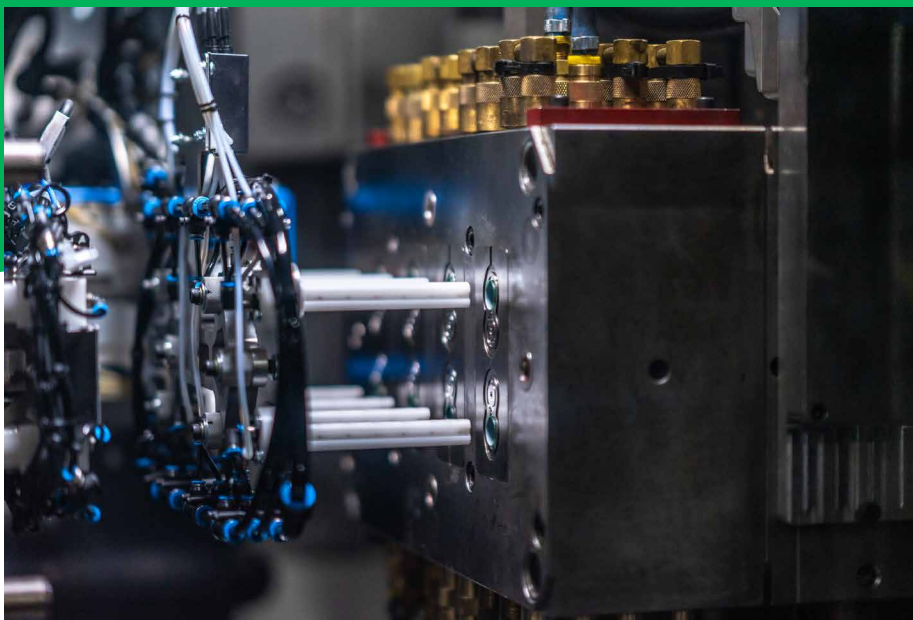


Sustainable Plastics Packaging Solution

Intertech Plastics



As the plastics industry continues to innovate on sustainable packaging solutions, Nexeo Plastics and award-winning injection molder, Intertech Plastics (Plastics News 2019 Processor of the Year, 2020 Best Places to Work), partnered together to deliver a solution that meets the regulatory and performance guidelines that manufacturers require with scientifically-proven sustainable material. To achieve sustainability goals, manufacturers required a material that reduced greenhouse gas emissions related to resin production, had complete degradation of parts in landfill, marine, and compost environments without leaving behind microplastics – and that met costs for production scale.

Over the two-year project timeframe, numerous candidate materials from Nexeo Plastics' broad line card — from hemp-compounded polypropylene to several iterations of mineral-reinforced PLA — were carefully considered, tested and ultimately eliminated before our application development engineers successfully sampled BioLogiQ's NuPlastiQ®. The material is a 100% natural, renewably resourced, plant-based compound, considered a near “drop-in fit” for its processing and performance features and degradation potential.

With an independent lab partner, additional testing is under way to measure degradation timelines for each of Intertech's packaging implements and to supply empirical data to quantify the landfill degradation timeline. Similar applications suggest a timeline for complete conversion to carbon of approximately 240 days in a typical landfill environment, using the ASTM 5511 testing standard. With future applications in mind, the NuPlastiQ material show potential to be used in different base resins to achieve complete degradation in landfill, marine, and compost environments.

As a leader in plastics distribution, discover how Nexeo Plastics can help you overcome material, process and application challenges.

PROJECT AT-A-GLANCE

Scope of Work

Material Selection for Sustainable Plastics Packaging

material selection | application development
engineering | testing and analysis |
custom blending

Contributors

Molder: Intertech Plastics
Supplier: BioLogiQ
Distributor: Nexeo Plastics

Industries Served

Flexible packaging
Biodegradable packaging
Consumer packaged goods

A Look Ahead

- Biodegradability data quantified for landfill, marine and composting environments
- Promising custom pellet blending tailored to end-use applications
- Potential color and performance additives to enhance formulation

“This project has far-reaching implications for manufacturers seeking to leverage the value of sustainable-plastics packaging, no matter where it lands. The ability to quantify landfill biodegradability claims to ASTM standards promises to be a game-changer across the industry.”

—President, Intertech Plastics

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