



MATERIALS

Standard ABS Polymer Materials Today. A Material Supplier Network to Fast-Track Innovations for Tomorrow

Evolve is helping companies bring their innovations to life. From parts with complex geometries and fine detail, to parts consolidated into one build or assembly. All can be produced in a single pass and designed and manufactured in completely new ways to maximize functionality.

Our proprietary process of standard ABS enables us to meet some of the most demanding manufacturing specifications.

The Evolve Materials Technology Center located in Rochester, New York, is staffed with engineers ready to convert your preferred engineering-grade thermoplastic into a STEP™ (Selective Thermoplastic Electrophotographic Process) compatible toner for the Evolve SVP™ (Scalable Volume Production) platform. We have formed partnerships with well-known global suppliers of materials.

In addition to our growing standard material offerings, we continue to work with customers to develop materials needed for their applications. A development agreement (DA) provides a low risk, phased approach to the development process with milestones that guarantee progress to your final performance goal, with your SVP system purchase.

This structure provides benefits to the customer as they are able to enter a market early with an additive process paired with the specific materials needed for their applications.

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KEY VALUE

Evolve uses standard thermoplastics for feedstock. Through a proprietary process these resins are 'micronized' into the small particles that are needed for the Electrophotography portion of Evolve's additive STEP technology process. This allows customers to leverage their knowledge of the preferred materials into additively manufacturing parts with no surprises about composition or performance. Knowing the desired end product thermoplastic behavior and requirements allows customers to specify materials that will most closely match current material performance and benefits, including compatibility with post processing such as plating or painting, when desired.

RECYCLING AND WASTE

The process to convert pellets to STEP compatible powder is sustainable with near zero waste or scrap. Undersized and oversized particles created during the process are fed back to the melt state along with virgin material such that in the end 100% of what goes into the process is used without waste. This is not only good for the environment; it is also part of the path to the lowest possible material cost.

EXAMPLE MATERIAL DEVELOPMENT ROADMAP:

- ABS (color, heat stable, UV/weather resistant, transparent)
- Nylon 11 (semi-crystalline)
- Nylon 11 (amorphous)
- Co-Polyester
- Polycarbonate
- TPE (TPU, PEBA)
- What is your need – ask our team

MATERIALS DEVELOPMENT

Looking for a specific material for your application? We provide optional levels of engagement, from proof of concept to beta use.

LEARN MORE

HEADQUARTERS

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