



ORANGEREPORT

PLASTICS INDUSTRY

Plastics Manufacturer Takes a Magnetic Approach to Recycling



POLYMAG SEPARATOR

Problem:

One of the many products produced by Canada-based [IPL Incorporated](#), a leader in producing injection and extrusion molded plastic products, is a two-piece assembly for a popular sport utility vehicle. They injection mold two parts using a fiberglass reinforced Polypropylene. These parts are then magnetically induction welded together to form a one piece assembly. Unfortunately, when scrap assemblies were made, it was not possible to reuse the valuable Polypropylene resin regrind because it contained welding material.

Solution:

IPL learned about the [PolyMag® Process](#), an innovative approach to plastics recycling developed by Eriez®. (The PolyMag additive is incorporated into one of the resins prior to molding, similar to colorant, making this resin susceptible to the extremely powerful magnetic field produced in the Erium® Rare Earth Roll Separator. Scrap parts are run through a traditional granulator and the PolyMag Separator can then separate the mixed plastic regrind.) Intrigued to learn more, IPL submitted assembly regrind materials for separation testing at the Eriez Technical Center. The trials were a success; the PolyMag Process made the formerly difficult task of removing the welding material from the Polypropylene a quick and easy task. Soon after the tests, IPL placed an order.

Result:

The return on investment for IPL has been outstanding. Management estimates that they have cleaned about 160,000 lbs. of material (which sells for roughly \$1.00 /lb.) that would otherwise have been wasted. Incorporating the PolyMag Process not only positively impacts IPL's bottom line, but also furthers the company's mission to reduce its impact on the environment.

Note: Some safety warning labels or guarding may have been removed before photographing this equipment.

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