



For Immediate Release

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Eriez' **PolyMag**[®] Process Revolutionizes Plastics Recovery

Eriez[®] patented [PolyMag Process](#) is providing multi-material plastic processors with significant material savings. With Eriez' **PolyMag Process**, costly hand sorting and other labor intensive procedures molders may use to recover valuable mixed resins are a thing of the past.



The **PolyMag Process** goes to the core of the problem by creating a material that incorporates separation characteristics into the design. By including less than one percent of the **PolyMag Additive**, the resin becomes a candidate for high intensity magnetic separation.

Sequential 3D blow molding, co-injection, two-shot injection, co-extrusion and overmolding processes can produce mixed resin scrap. This scrap is often made up of dissimilar resins or colors that need to be separated for maximum recovery efficiency and cost savings.

One challenge multi-material processors face is segregating and recovering dissimilar resins. Salvage labor is expensive and inconsistent. Cutting, peeling and sawing multi-material molded parts create employee ergonomic risks. A major producer of co-injection molded parts has achieved substantial material savings by separating and reusing an expensive co-polymer skin material.

Eriez' cutting edge **PolyMag Process** utilizes the time-tested method of high intensity magnetic separation to reclaim valuable plastic resins. The **PolyMag Separator** uses extremely powerful Erium[™] Rare Earth Permanent Magnets to separate mixed resin regrind particles. These powerful magnets allow effective separation with a tiny amount of the **PolyMag Additive**.

In the **PolyMag Process**, the first step is to dose less than one percent of the **PolyMag Additive** into one of the co-molded resins with an additive feeder or color auger. Then to recover the scrap that occurs from start-up, process variations or design changes, simply granulate the multi-material moldings using a standard plastics granulator. The regrind material is now ready to be run through the **PolyMag Separator**. The end result is a high percentage of resin separation, in less time and with greater safety than ever before possible.

By design, the **PolyMag Additive** imparts a low level of magnetic susceptibility without materially affecting the physical properties of the resin or molded part. The additive is a free flowing pellet, with a co-polymer carrier that is compatible with a wide range of resins.

All resins, including thermosets and thermoplastics, are candidates for the ***PolyMag*** Process. As long as the multi-material part can be ground, ***PolyMag*** can help separate it.

When chemically bonded materials with a high percentage of surface contact are used, it may be necessary to produce a smaller regrind particle to liberate the two resins. The process has even demonstrated the ability to separate a thin, crystalline barrier resin from pulverized blow molded containers. Eriez can offer assistance in this area.

Eriez is recognized as world authority in advanced technology for magnetic, vibratory and inspection applications. The company's magnetic lift and separation, metal detection, x-ray, materials feeding, screening, conveying and controlling equipment have application in the process, plastics, rubber, metalworking, packaging, recycling, mining, aggregate and textile industries. Eriez manufactures and markets these products through ten international facilities located on six continents. For more information, call toll-free (888) 300-ERIEZ (3743) within the U.S. and Canada. For online users, visit www.eriez.com or send e-mail to eriez@eriez.com. Eriez World Headquarters is located at 2200 Asbury Road, Erie, PA 16506.