

exam Medical Packaging Wins Top Honors

exam Medical Packaging, based in Mundelein, Illinois, has won the Flexible Packaging Association's (FPA's) highest honor for environmental achievement — the Green Globe Award. The award was given to Rexam Medical for an innovative flexible package that it developed for Ethicon Endo-Surgery (EES), a Johnson & Johnson company headquartered in Cincinnati, Ohio.

Created as a replacement for rigid plastic trays with peelable, coated lidstock of DuPont Tyvek® spunbonded polyethylene, the new flexible, thermoformed pouches save up to 80 percent in packaging materials by weight, and even more by volume. Designed for packaging endoscopic devices, the pouches consist of Rexam Medical's 12-mil Integra® Form C film (a coextrusion consisting of DuPont Surlyn® and ethylene vinyl acetate) and a sealing web of adhesive-coated Tyvek® 1073B. To produce the pouches, the Integra® film is rolled out and formed into cavities that are filled with surgical instruments. Then lidstock of Tyvek® is rolled out over the packs and automatically sealed to the film. Using this process, which was developed during a 12-month collaboration between Rexam and EES, material and labor costs have been lowered, while line speeds have been increased.

Adopted by EES in September 1996, the new pouches require one-third of the hospital shelf space needed for rigid trays. They also reduce waste, taking up only 10 percent of the volume of rigid packs when compressed. As a added bonus, the lidding of Tyvek® can be recycled, resulting in even less waste. Smaller and easier to open, the pouches have been highly rated by hospital nurses for use in sterile environments.

The packaging, which is a first for endoscopic devices, was selected after a year-long search by an EES project team led by Mark Leuenberger, a staff packaging engineer. "We wanted a world-class package in terms of environmental concerns," Leuenberger said, "but it had to have tensile strength after gamma radiation and aging, too. Puncture resistance was of utmost importance. We evaluated more than 60 different materials from around the world before deciding on Rexam's Integra® Form C film and Tyvek®."

The packages, and the processes to produce them, were also evaluated for product protection and sterility assurance. With the strength and puncture resistance of both the Integra® film and the lidding of Tyvek®, the new packaging provides protection meeting the same high standards as that of rigid trays. To date, EES is packaging more than 30 products in these flexible packages. Many more are expected to be converted to the new process for distribution worldwide. When the conversion to the new packaging is complete, EES projects that more than 350,000 pounds of polymer will be saved each year.