

PACKAGING SOLUTIONS

Recessed, User-friendly Pouch Easy on Dialysis Patients

PROBLEM:

When Baxter Healthcare Corp.'s-Renal Division sought to re-engineer the packaging for its MiniCap product, the company had its end-users in mind. Patients suffering from kidney failure often experience loss of strength and dexterity. For these end-users of the MiniCap-a sterile treatment applicator-the task of opening packages without contaminating product can be quite problematic. Baxter needed a package that would easily peel open yet provide a secure, sterile base, or recessed area, that would hold the product until ready for use and, thus, eliminate, or at least reduce, the risk of touch contamination.

SOLUTION:

Baxter worked closely with Rollprint Packaging Products, Addison, IL, to identify flexible laminates that met Baxter's specifications for a secure, yet user-friendly package. The package would serve as an alternative to the existing chevron-style pre-made pouch, which, upon opening, did not provide the user much opportunity to keep from touching the sterile MiniCap product. The result is a new form/fill/seal pouch consisting of two laminates, each using a different proprietary peelable sealant.

Together these top and bottom laminates achieve the required seal strength yet offer easy-to-peel seals. The package, which won a Flexible Packaging Association 1997 Top Packaging Award, provides the moisture barrier properties and chemical resistance needed by the product while requiring 25 percent less force to peel open than the pre-made pouch.

Peritoneal dialysis patients use the povidoneiodine impregnated MiniCap at home to disinfect kidney dialysis disposables between treatments, which are done several times a day. To assure proper sterility, patients must adhere to an aseptic technique as they carefully open the package and use the product.

The package's bottom web consists of laminated foil from Rollprint that is pressure-formed during the f/f/s operation without losing barrier properties or chemical resistance and forms a recessed base.

"Because the new package easily peels open and provides a sterile base for the product, the risk of touch contamination is reduced or eliminated," observes Cathy St. John, senior packaging engineer at Baxter.

Produced on a horizontal f/f/s machine from T.W. Cutter, a division of Tetra Laval, the MiniCap pouch with its formed foil base is 33 percent smaller dimensionally than the pre-made pouch, which has no recessed area to hold the MiniCap. This, notes St. John,

translates into source and waste reduction of 33 percent while providing warehousing, distribution and storage savings.

While the foil layer improves water vapor barrier transmission rates by more than 50 percent compared to the pre-made pouch, a polyester layer protects the foil from the corrosive iodine vapors. The 2.3 mil bottom web is stretched during pressure forming and maintains a finished aluminum foil thickness of 0.50 mil or more. The 3.6 mil top web presents a paper surface to an in-line flexo printer eliminating the need for pre-printed material and allowing for quick artwork changes.

More than 20 million MiniCap pouches are produced each year for the U.S. market at Baxter's Cleveland, MS, plant.

For more information:

Rollprint Packaging Products **Circle 160**; T.W. Cutter **Circle 161**.