

Sample Expanded Narrative #1

Rectangular Rigid Plastic Container With Hinged Lid

Expanded Narrative

1. Innovation

- a) Creative application: a rigid plastic (injection molded) container is unique to the garden aisle that traditionally features fiber board boxes or plastic bags.
- b) Technical advances: largest-known IML decoration for a non-round container for consumer products, 12.75" x 293/8", maximizes bill-boarding with high-quality photorealistic graphics.
- c) Design Advances: the lid features an innovative, patented hinge, which allows opening without a tool, stays permanently affixed to the pail, and a lock in place mechanism that keeps the lid open and conveniently out of the way. The lid also has lugs for reliable stacking of containers on top of one another on a pallet which also decreases the need for secondary packaging to ensure pallet stability. In addition, the lid is "raised" and with the presence of channels allows water to drain off and not collect, to aid in outside storage. The container also has a patented two piece plastic handle with a rotating grip to make it comfortable to carry the filled container. This handle has the capability of color coordination with the rest of the package to provide greater shelf impact.
- d) New Material Applications: As mentioned above, the application of a large in mold label is a new application for injection molded non-round containers.
- e) Transfer of one technology from another use: this application represents a new use for rigid plastic containers, in the dry lawn and garden products category

2. Protection

- a) Biological, Chemical and Distribution Requirements: the key requirement addressed here was package integrity when shelved in pallets in outdoor racks of garden stores. The incumbent package, made of fiberboard, degrades when exposed to water, causing both pallet and package failure, where product spills from the packages, and physical safety is at risk.
- b) Testing Methods: package/pallet integrity was verified in actual store placements, however, test methods that involve exposing stacked packages with water in quantities similar to that seen in an average rain storm would confirm the design
- c) Do Test Methods Address Needs: no specific test methods were generated for this need
- d) Has package met testing requirements: the package has met protection requirements, as confirmed in in-store inspections

3. Economics

- a) Cost Reduction Factors: although injection molded containers can cost more than fiber board containers, when compared on a total system basis the cost difference is minimal. For instance, empty containers can be nested when sent to the filling site, providing delivery savings. In addition, fiber board cans require equipment and labor to assemble before they are filled- injection molded containers do not require these costs. Also, automated lidding can be easily used when filling a rigid plastic container since it is not easily deformed as a fiber board container. A key cost saving is related to damage reduction related to the costs associated with clean-up of water damaged fiber board cans and return costs.
- b) How were costs reduced: as mentioned above costs were reduced by eliminating fiber can assembly (equipment & labor) and automated lidding of filled containers (labor) and by reducing damaged packages/returns
- c) Life Cycle Issues: The rigid plastic container is significantly more durable than the incumbent package. Large plastic pails are commonly re-used by consumers once the contents are emptied. In a survey conducted by Oracle Poll, 78% of consumers keep a 19L pail for 6 months or more, and 63% keep them for a year or more.

4.Performance

- a) How does the package fill, open, re-close, store. The package is filled using conventional bulk solid/granules/powders filling equipment. The lid is snap-fit onto the container using conventional lidding equipment. The lid has a patented ring pull feature that takes the lid undercuts away on 3 sides, and opens on the hinge that is near the 4th side. The undercuts remains on the 4th sided, which keeps the lid permanently affixed to the pail. A portion of the undercut remains on the side opposite the 4th side, which allows the lid to stay closed on the pail.
- b) How does it run on machinery: The container is designed to maximize the efficiency of standard bulk solids filling equipment. The lid has specially designed ribs and lead-in angles to optimize the lidding operation.
- c) Overall integration: No significant impact was experienced with this change
- d) New benefits to end users: reuse allowing consumers to store personal items, durable container is impervious to vermin and insects when stored in the garage or outdoors (e.g. versus bags), weather proof containers can be stored outdoors in the rain without collecting water and causing damage to the integrity of the containers, package is easy to carry with the patented EZ Grip TM handle from the store to the car and to the home.

5.Marketing

- a) Structure/graphics and how they contribute to image, shelf impact: one of the key benefits of this package is the high quality IML graphics on the rigid plastic container is able to withstand outdoor weather conditions (rain, excess sun) and still provide excellent shelf impact to strengthen the brand image,
- b) If redesigned, how did it improve acceptability of package: due to confidentiality reasons, we can not provide any market volume details, suffice to say the market launch was very well received!

6.Environmental Impact

- a) How does package address environmental considerations: A significant environmental impact is the reuse of the plastic container after the product is empty. In a survey conducted by Oracle Poll, 78% of consumers keep a 19L pail for 6 months or more, and 63% keep them for a year or more. Another aspect is recyclability. The container is made of PP and can incorporate up to 25% per content if required.