



“Ridge Grip” Is a New Hot-Fillable Plastic Jar Designed With Style And Ergonomics at Consolidated Container’s Panella Design Center

Consolidated Container Company (CCC) is touting its Ridge Grip package as a light-weight and ergonomic alternative to the conventional glass jar. Food manufacturers are converting many products to plastic containers because of the expense and liability of glass and because consumers are making their preferences heard.

Until now, plastic was not a viable option for hot-filled products such as spaghetti sauce, salsa, jam, applesauce, and other fruit products. Today, form meets function as the Ridge Grip’s unique design both ensures package integrity in hot filling and promotes consumer confidence in its easy-to-grip ridges.

The Ridge Grip project is a culmination of all the personnel and resources at CCC’s new Panella Center responding to market forces. Marketing and sales teams compiled very pointed research about what customers want from a spaghetti sauce jar today—a lighter, easier to control design and a package that doesn’t break when dropped. Meanwhile, design and engineer teams researched suppliers for lightweight materials currently available that could provide the strength needed to fulfill all the requirements.

The designers, led by design manager John Manderfield, worked with CCC’s materials experts to discover new grades of polypropylene resin that could provide the strength, clarity, and gloss that they were looking for when molded in CCC’s

Lamicon®, multilayer structure. This multilayer structure was important for achieving the oxygen barrier advantage that could seal the deal on manufacturers considering Ridge Grip technology for hot-filled products.

The proprietary manufacturing process for the Ridge Grip incorporates this oxygen barrier to prolong product freshness and quality. “Our Lamicon, multilayer technology builds in a thin, consistent layer of barrier material that maintains product quality in the supply chain, on the shelf, and in the consumer’s home, while maintaining package shelf appeal,” explains Steve Macadam, CEO of CCC.

The innovative design of the ridges strengthens the container and allows hot-filling without the usual vacuum panels that many current hot-filled plastic containers have. The Ridge Grip absorbs the vacuum collapse without bottle deformation. Normal vacuum panels create indentations in the bottles, making label application problematic for the manufacturer and unappealing for the consumer. In between the side ridges, Ridge Grip plastic jars have perfectly smooth label surfaces, both front and back.

The marketing research has confirmed that consumers perceive a big difference in value when the label lies flat on the bottle and doesn’t “crinkle” when the product is picked up. Vacuum panel indentations also carry the conscious or unconscious perception that the container is “damaged.” The Ridge Grip jars tend to have a slightly narrower diameter than a typical glass jar it would replace, further enhancing comfortable use for smaller hands.

“The Ridge Grip is the ultimate package for hot-filled food products, encompassing both form and function,” says Henry Vogel, vice president of



Materials innovations and design innovations make the hot-fillable Ridge Grip plastic container a hot commodity.

Engineering and Development. Ridge Grip plastic jars were imagined, created, modeled, produced, and tested in CCC's Panella Center, which is now one year

old. CCC is a leading U.S. developer, manufacturer, and marketer of blow-molded rigid plastic containers for the beverage, consumer, and industrial markets. ■

The Panella Center Collects the Talents of Two Dozen Engineers And Designers Under One Roof

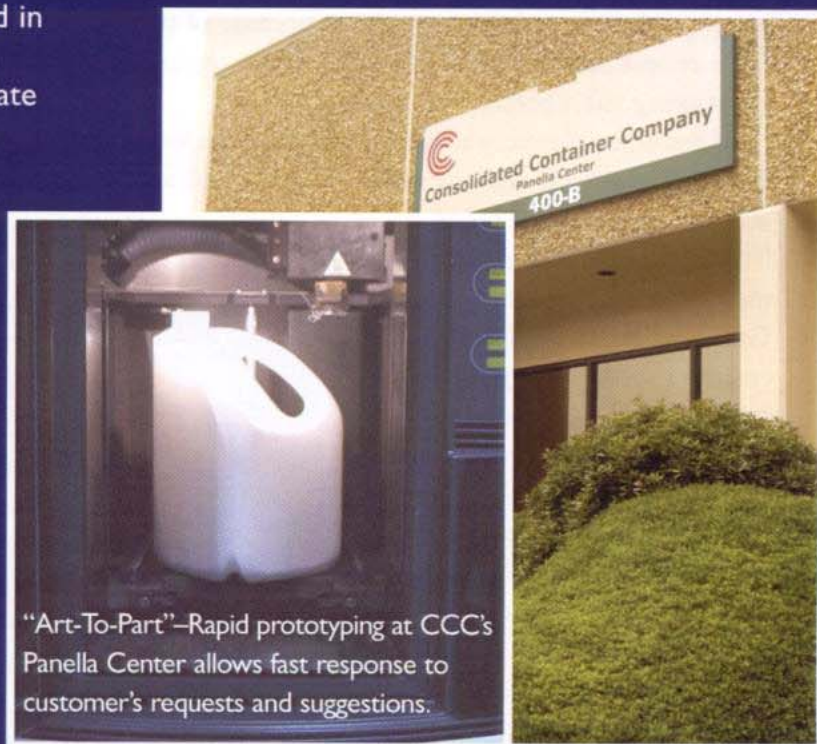
The Ridge Grip plastic "jar" is just another new innovation from the Roger C. Panella Engineering and Development Center at Consolidated Container Company (CCC). The Center is a cutting-edge facility for the design, development, manufacture, and testing of blow-molded plastic containers, and was dedicated in July of 2003.

The center was named in honor of the late Roger C. Panella, founder of Double R Enterprises, one of CCC's antecedent companies. "CCC dedicated the Center in Panella's name to honor his extensive, groundbreaking work and his contribution to the blow-molding industry," says Keith Brower, senior vice president of Operations Support.

The Panella Center facility provides world-class innovation and development services to CCC's customers by employing the latest design technologies and state-of-the-art prototyping. The Center operates a totally modernized design and product development studio, a materials and product laboratory capable of all elements of testing both bottles and component materials, a multi-line pilot plant with bottle production capabilities in a variety of resins with a wide range of manufacturing technologies, and the full spectrum of mold and material development activities.

"The Panella Center was created to support our customers' needs," explains Steve Macadam, CEO. "Design is just the beginning. Modeling, materials, production, and testing round out our innovation capabilities, enabling us to drive seamlessly, quickly, and efficiently from 'art to part'."

Driving toward an aggressive goal of as short as a single business week, a customer can work with CCC's design team, feed the dimensions into a modeling machine, develop a prototype, create a mold, and produce sample packages. "We can blow bottles in our pilot plant while the customer watches," says Brower. The prototyping machines can convert CAD drawings to very accurate plastic models in the space of only a few hours. Once



"Art-To-Part"—Rapid prototyping at CCC's Panella Center allows fast response to customer's requests and suggestions.

packages have been produced, a full-service on-site materials lab oversees dimensional and environmental testing.

CCC innovations include a microwaveable plastic package with a handle that stays cool and the Conolene, in-line fluorination process that seals the interior surfaces of packages intended for volatile products. The company holds over 70 design and utility patents for rigid plastic packaging innovation.



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