

## THINKING INSIDE THE BOX

The corrugated box inspires creative play and a new business.

Trina Burden

**Creative Corrugate Inc. designs, manufactures, and markets corrugated playhouses for children aged three to ten. One of its founding partners, Jamie Matear, is determined to grow the company while adhering to strict environmental practices. So far, Matear has developed a product that is produced and assembled locally, uses 30% recycled materials and is recycled at the end of its useful life. He has even convinced the manufacturers of Crayola to endorse the product by supplying their brand name, non-toxic crayons to be sold with the playhouses. Now Matear is trying to market his product to mass merchandisers and to nudge his Canadian corrugators to increase the percentage of recycled content in their product.**

Remember the Mastercard commercial where the child gets a new toy but enjoys playing more with the box the toy came in? Well, that's more or less how Toronto's Creative Corrugate Inc. got started. One day, Jamie Matear was visiting his childhood friend, Chris Hamden and noticed how much fun Chris's daughters were having playing with a large corrugated box that had been converted into a playhouse. A business opportunity was born.

Creative Corrugate was incorporated in late 2001 by Matear and Hamden who were also both MBA graduates. The company introduced its first products, two large playhouses, at the Canadian Toy fair in Toronto in 2002. Their original stated mission was "to profitably design, manufacture and market safe, fun, environmentally sound and socially responsible corrugated toys for children."

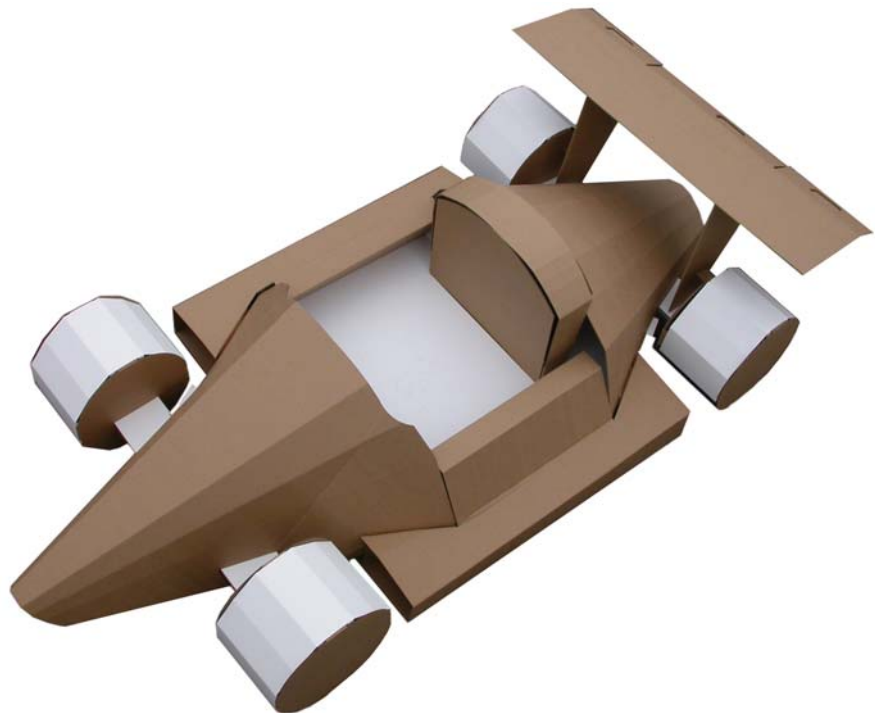
### High creativity, low cost

The product strategy was to create a simple, low cost toy that young children could enjoy with their parents. The playhouses were deliberately left plain, so that children could engage in colouring and decorating the surfaces. The basic self-assembly toy promotes a creative learning and sharing experience. The product is easy to assemble and collapses for convenient storage at the end of playtime. When the playhouse is no longer useable, the family can recycle the product in their blue box.

Within the toy market, Creative Corrugate's product falls into the "activity" category of infant/preschool toys. Apart from its sustainability advantages, the corrugated playhouse is a more creative, low cost

alternative to the expensive, purpose-built plastic dollhouse made by brand name toy manufacturers. Creative Corrugate has also developed a castle, as a companion toy to the playhouse. It's latest prototype is for a Molson Indy racing car.

The latest product by Creative Corrugate: The Molson Indy racing car.



So far, the company is selling its playhouses mainly through specialty toy retailers but recently the Home Hardware chain has accepted the product. The ultimate goal is to reach the shelves of toy departments in mass merchandisers like Wal-Mart, Toys R US, Sears, Zellers and Canadian Tire.

In an attempt to attract an adult target

audience, Creative Corrugate has developed a new product: a corrugated CD holder designed like a mini milk carton. These small CD boxes are extremely inexpensive, designed to stack, and can be sold as an impulse purchase at the cash desk of hardware stores and home retailers.

Research has proven that, while North American consumers are becoming more interested in purchasing environmentally responsible products, their buying decisions are still driven mostly by price, quality, convenience and availability. If customers can be offered green products where they shop, and these products are not inferior in quality or significantly higher in price, then customers may switch to the green alternative.

When Creative Corrugate carried out early focus groups, participants indicated they would pay between \$40 and \$60 for the educational value of their corrugated playhouses. However, when retailers were sampled, they disagreed and thought the product should be priced between \$20 to \$30 since it was perceived as just pieces of cardboard. Since these surveys were conducted, the company has been working

to bring production costs down to meet this lower target price range without sacrificing its established sustainable production practices.

### Leading on Sustainability

The company's commitment to sustainability is reflected in its stated objectives. It has declared that it will use recycled materials

and eco-friendly printing in both products and packaging, and will participate in relevant charity or fundraising activities.

Jamie Matear says that he has always believed that products do not have to be harmful to the environment in any way to be successful. He knows that both the technology and the processes already exist to make products more sustainable. It has become his personal mission to prove that it can be done without sacrificing business profitability. The difficulty is in finding partners to work with.

### **Manufacturing**

The corrugated industry has the technology to create 100% recycled corrugated material, but each supplier varies in the amount used. The average Canadian-made corrugated product contains around 54% recycled material with cardboard being the most widely recycled material in the mix. As a whole, the industry is still challenged to obtain more recovered material locally as opposed to importing it from the United States.

One of Jamie Matear's initial sustainability goals was to have 95% recycled material in his company's toys. But local suppliers were not able to confirm the percentage of recycled content in their product unless a premium was paid. So the company has had to settle for using material with 30% recycled content. Jamie Matear consoles himself with the fact that Creative Corrugate's products are recyclable at the end of their useful life.

Another challenge for Matear has been trying to manufacture, die-cut and assemble the product in the same location. To minimize the environmental impact of transportation between the point of production and assembly, it is very important to continue to make the products in Canada and, ideally, to confine the stages in production to one location. Creative Corrugate has been experimenting with several corrugators to meet this challenge. It is a difficult business decision to take considering that labour prices in China would result in 30% to 50% lower manufacturing costs. Even American corrugators could easily undercut Canadian producers on price. Matear's answer is to try to cut costs in other ways so that he can continue to manufacture locally.

### **Designing the Box**

Creative Corrugate was initially concerned about the quality of the corrugated material used in its products: the gauge of flute (the wave-shaped middle layer that gives corrugate its name) and the quality of surface paper. Creative Corrugate wanted to

ensure that its playhouses were reasonably sturdy so families could re-use the products over time. The company selected a special order surface paper to add rigidity to the toy and to produce more even colour when the playhouse was decorated. However, additional research has proven that paper quality can be downgraded while still achieving similar functionality and quality.

Originally, Velcro was incorporated into the playhouse design in order to attach the roof. But Creative Corrugate is looking to replace the Velcro strips with corrugated lock tabs that allow the panels of the playhouse to interlock. The elimination of Velcro reduces variable costs in production and also removes the only non-recyclable component of the base product.

Other initiatives in new designs are a result of lessons that Creative Corrugate has learned in production. The first designs did not take into consideration material waste that is produced as the corrugated material is die-cut into panels. The new products are designed to reduce waste from the current ratio of 30% down to a minimal 5%. Another innovative production move will standardize dimensions for the various playhouses in the product portfolio so that they can use the same packaging and the packing process can maximize the use of skid space. The more efficient use of space will decrease the cost and environmental impact of storage and transportation. The introduction of similar size packaging can also reduce costs by affording higher volume production runs.

### **Packaging**

Creative Corrugate carefully considers the environmental impact of its packaging. Initially, the company wrapped its playhouses in a 30cm corrugated band which, like the product itself, had recycled content and was recyclable. However, to better contain and retail the product, the company then moved to a shrink-wrapped plastic sleeve. But, after recognizing the waste created by the plastic shrink-wrap, Matear has decided to move back to corrugated packaging, this time using a larger protective sleeve to more fully protect the product. Even though the corrugated sleeve carries a higher cost than plastic, the sleeve is made of recycled material and is recyclable. The new sleeves will also function as a value-added product accessory. They will be printed with trees, fences and other images that can be used to create a setting for the playhouses.

### **Brand Endorsement**

Now, the playhouses also come with non-toxic crayons. Binney and Smith Canada have provided Crayola crayons to Creative Corrugate in support of the company and its products. Binney and Smith have also permitted the use of the Crayola brand name on the playhouse packaging. This relationship gives Creative Corrugate a new level of legitimacy and the company hopes to leverage this alliance and other partnerships with larger companies to secure sales to major retailers.

The decision to provide non-toxic crayons with the playhouses also fits with Health Canada's proposed lead strategy which is focused on ensuring minimized exposure to children and includes concerns regarding the lead content of paint on furniture and toys or crayons that could be ingested during playtime. Creative Corrugate encourages the use of decorative material that is safe for children and the environment and provides decorating suggestions on its website.

A future goal is to use vegetable-based inks for printing on labelling and packaging. Creative Corrugate had previously enquired about organic inks but the concept was unfamiliar to corrugators. Matear believes that in order to move the corrugated industry in this direction, large corrugated customers will need to get involved.

### **Changing Behaviours**

For Jamie Matear and his partner, building sustainability into their new business is not about selling more items or just making money. Profit is secondary to creating value, he believes.

So far, Creative Corrugate has incorporated sustainability principles in manufacturing, design, packaging, and product accessories. Starting with the knowledge that there is industry capability to improve, Creative Corrugate is doing its part to try to change behaviours by requesting more sustainable practices from its corrugators. Matear believes a true measure of success would be for the company to be recognized for its actions. ●