



Sustainability and  
Flexible Packaging  
More value. Less waste.

# Sustainability

FOR MORE THAN 50 YEARS, THE FLEXIBLE PACKAGING INDUSTRY HAS BEEN COMMITTED TO CREATING INNOVATIVE, SUSTAINABLE PACKAGING. A SUSTAINABLE PACKAGE TAKES INTO CONSIDERATION ALL ASPECTS OF THE TRIPLE BOTTOM LINE (FINANCIAL, SOCIAL, ENVIRONMENTAL) AND EACH STAGE OF A PACKAGE'S LIFE CYCLE, INCLUDING RAW MATERIALS, PRODUCTION PROCESSES, TRANSPORTATION, FUNCTIONALITY, END-OF-USE OPTIONS, AND THE SUSTAINABILITY OF THE PRODUCT BEING PACKAGED. TODAY, THROUGH TECHNOLOGY AND INNOVATION, FLEXIBLE PACKAGING IS AT THE FOREFRONT OF IMPORTANT TRENDS IN PRODUCT PROTECTION, PACKAGE DESIGN AND MINIMIZATION, CUSTOMER CONVENIENCE, WASTE REDUCTION, AND RESOURCE CONSERVATION, POSITIVELY IMPACTING THE ENVIRONMENT, CONSUMERS, AND BUSINESSES.



# Environment

## Less waste in the first place®

The life cycle attributes of flexible packaging demonstrate many advantages across numerous packaging applications. Flexible packaging starts with less waste in the first place, greatly reducing landfill discards. Innovation and technology have enabled flexible packaging manufacturers to use fewer natural resources in the creation of their packaging, and improvements in production processes have reduced water and energy consumption, greenhouse gas emissions, and volatile organic compounds. Even more, lighter-weight flexible packaging results in less transportation-related energy and fossil fuel consumption and environmental pollution. For today's needs – and tomorrow's – flexible packaging is a wise choice.



# Community

## Enhancing the quality of life

Consider the many ways flexible packaging enhances our quality of life: Flexible packaging increases free time by facilitating easy-to-prepare and microwavable meals. It provides peace of mind through innovative materials that help assure freshness and safety in the items we buy. It reduces the weight of the contents in our shopping bags, as well as the amount of household packaging waste (and landfill consumption). Further, flexible packaging offers very high BTU fuel content for communities where waste-to-energy programs are available, reducing dependency on other energy resources. These facts, plus the environmental considerations mentioned previously, make flexible packaging a true friend in your home and community.



# Economy

## **Efficiencies reduce waste and cost**

The concept of sustainability recognizes the importance of a thriving economy. Flexible packaging proves its worth and its value for businesses, as well as consumers and the environment. With flexible packaging, converters, manufacturers, shippers, and warehouse personnel gain more cost-efficient production and handling. Retailers benefit from tighter, more eye-catching shelves, with products delivering longer shelf life. Transparent collation films reduce the need and cost of printing on secondary packaging and efficiently combine shipping and retail packaging reducing back-of-store waste. Flexible packaging can also provide traceability and brand protection reducing potential losses. More value with less packaging – that's what the innovations of flexible packaging consistently deliver in the drive for sustainability.



# Conservation

## Coffee Brick Packs Conserve Resources and Landfill Space

Traditionally packaged in metal cans, technology advances have now created flexible structures such as the brick pack for coffee. Among many advantages, these innovative packages:

- contain 88% less packaging by weight compared to metal cans<sup>1</sup>
- reduce weight of waste to landfill by 72% vs. metal cans (taking recycling rates of cans into account)<sup>2</sup>
- use 20% less space in shipping than cans<sup>2</sup>
- offer energy savings equivalent to 17,200,000+ gallons of gasoline per year in manufacturing and transportation (by changing all steel can coffee packaging to flexible brick packs)<sup>2</sup>

The potential for reducing actual petroleum use by reducing package weight in transport is even more impressive!



<sup>1</sup>Calculations compare 422.38 g total weight metal can with plastic lid (326 g of contents) versus 337.33 g total weight "brick pack" (326 g of contents)

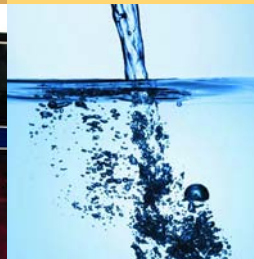
<sup>2</sup>The ULS Report, February 2007, Coffee Conundrum Case Study

# Reductions

## Flexible Mailers Reduce CO<sub>2</sub> Emissions and Fuel Consumption

The manufacturing of flexible plastic mailers contributes much less CO<sub>2</sub> to the atmosphere than mailers manufactured with alternative materials. Additionally, the lower weights of flexible mailers reduce mailing costs and enable greater fuel efficiency in transportation costs, thus reducing fossil fuel consumption. Here are some of the facts:

- Paperboard mailers produce 7.5 times more landfill waste by weight per 100 g of shipped product than flexible pouch mailers produce.<sup>1</sup>
- The flexible pouch mailer uses 1/8 the amount of packaging per 100 g of product shipped than the paperboard mailer.<sup>2</sup>
- Using a flexible pouch mailer reduces shipping weight by 0.19 lbs resulting in \$3.38 decrease in delivery costs for FedEx Standard Overnight® than the use of the recycled paperboard mailer<sup>3</sup>



<sup>1</sup>Landfill waste data source: The ULS Report, February 2007 (assumes a 12% recovery rate of paperboard)  
<sup>2</sup>Product weight assumption: 100 sheets of 24 lb 8.5" x 11" copy paper  
<sup>3</sup>FedEx® mailing assumptions: 1.0 lb product without packaging mailer (mailer weight added for cost estimate), residential address ship from ZIP code 21202 (Baltimore) to 60602 (Chicago), declared value \$10.00, FedEx Pak package type, based on FedEx.com rate finder 9-10-07. FedEx and FedEx Standard Overnight are registered trademarks of FedEx Corporation.

# Convenience

## Innovations Add Convenience to Sustainable Packaging

Representing one of the best sustainable solutions for packaged rotisserie chicken available in the market today, the Hot N Handy® Rotisserie Pouch is a flexible, all-in-one package that gives consumers convenient, value-added features like a built-in-handle for easy carrying, a resealable zipper, and a slim profile for saving leftovers. The package is also leak resistant and microwave ready. Compared to rigid containers, the flexible packaging pouch:<sup>1</sup>

- uses 88% less fossil fuel to produce
- produces 85% less CO<sub>2</sub> emissions during the manufacturing process
- offers a 66% reduction in solid waste



<sup>1</sup>Data based on 2007 Life Cycle Analysis testing by Robbie Manufacturing, Inc., conducted using SimPro 7.1 LCA Software. For more information on the Hot N Handy® Pouch, visit [www.robblemfg.com](http://www.robblemfg.com). Hot N Handy is a registered trademark of Robbie Manufacturing, Inc.



Value

THROUGHOUT ITS LIFE CYCLE, FLEXIBLE PACKAGING PROVES ITS USEFULNESS AND ITS VALUE FOR BUSINESSES, CONSUMERS, THE ENVIRONMENT, AND FUTURE GENERATIONS. INNOVATIONS IN FLEXIBLE PACKAGING HAVE INCREASED PRODUCT PROTECTION AND CONSUMER CONVENIENCE, ENHANCED RETAIL SHELF IMPACT, AND IMPROVED MANUFACTURING EFFICIENCIES – ALL WHILE USING LESS PACKAGING AND LESS NATURAL RESOURCES AND CREATING LESS WASTE. USING INNOVATIVE FLEXIBLE PACKAGING IS AN EXCELLENT, SUSTAINABLE CHOICE THAT OFFERS MORE VALUE FOR EVERYONE – TODAY AND TOMORROW.



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