

# challenge » solution

## Solutions for packaging reduction—removing layers

### product description

- » Fresh Pizza Package
- » Sales unit = 1 pizza, 927 grams
- » Current package design comprised of a windowed corrugated carton and paper transport tray
- » Alternative package replaces all existing components with a recycled-content semi-rigid thermoformed tray that is heat sealed with a flexible lidding stock featuring high-impact graphics

### challenge

- » Think outside the box for new solutions to sustainable package design
- » Remove excess layers of packaging, while maintaining product freshness and quality
- » Extend product shelf life from 5 to 20+ days
- » Reduce the amount of packaging waste going to landfill
- » Use existing packaging equipment

### solution

- » Utilize Pentafood® kpbar™ SmartCycle® PET barrier films made with 50% recycled content from post-consumer beverage bottles
- » Eliminate paperboard carton & corrugated paperboard insert tray
- » Replace flexible packaging with semi-rigid thermoform-fill-seal tray & flexible top web featuring high-impact graphics

### results

- » Extends shelf life by 15+ days, reducing food waste and the environmental burden of added food production
- » Diverts 290 tons of packaging from the landfill annually, including the equivalent of 6.7 million 16-oz PET bottles
- » Saves enough energy to power 993 single family homes for a year (45,659 GJ)
- » Uses 2,022 fewer barrels of oil per year
- » Reduces greenhouse gas emissions by an amount equivalent to driving 343 passenger cars for a year (1,794 tons CO<sub>2</sub>E)
- » Conserves enough water for 1,548 people to shower daily for a year (21.2 million gallons)
- » Improves product-to-package ratio from 82:18 to 94:6 by removing 918 tons of packaging
- » Uses existing packaging equipment to eliminate the need for costly equipment modifications

Results based on 5 million units sold per year



#### sources:

Franklin Associates. *Partial life cycle environmental profile for nine plastic products.* July 2007

Franklin Associates. *Life cycle data for various paper products.*

Environmental Protection Agency Calculations and References. <http://www.epa.gov/cleanenergy/energy-resources/refs.html>

Energy Information Administration. *2005 Residential Energy Consumption Survey.* [http://www.eia.doe.gov/emeu/recs/recs2005/hc2005\\_tables/hc3demographics/pdf/tablehc2.3.pdf](http://www.eia.doe.gov/emeu/recs/recs2005/hc2005_tables/hc3demographics/pdf/tablehc2.3.pdf)