

challenge » solution

Solutions for packaging reduction—removing layers

product description

- » Frozen Pizza Package
- » Sales unit = 1 pizza, 927 grams
- » Current package design comprised of printed paperboard carton containing flexible nylon forming & non-forming webs which seal frozen pizza on corrugated paperboard insert tray
- » Alternative package replaces all existing components with a 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
- » Reduce the amount of packaging waste going to landfill
- » Use existing packaging equipment

solution

- » Utilize Pentafood® kpbar™ barrier films
- » 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

- » Removes 365 tons of packaging
- » Saves enough energy to power 195 single family homes for a year (21,935 GJ)
- » Uses 995 fewer barrels of oil per year
- » Reduces greenhouse gas emissions by an amount equivalent to driving 172 passenger cars for a year (937 tons CO₂E)
- » Conserves enough water for 863 people to shower daily for a year (11.8 million gallons)
- » Improves product-to-package ratio by 8% from 87:13 to 95:5
- » Uses existing packaging equipment

Results based on 5 million units sold per year



sources:

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

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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