

# Stand-up Pouches – 2009 to 2012

## Global Markets, Technology, and Opportunities

### Section I:

#### Introduction

- A. Stand-up pouch defined
- B. The difference between a bag and a pouch
- C. Geographic regions
- D. Included in the study
- E. Methodology and organization of this study
- F. Conventions

### Section II:

#### Executive Summary

- A. Market forces
  - 1. Differentiation
  - 2. Environmental impact
  - 3. Applications
  - 4. Infrastructure
  - 5. Equipment productivity
  - 6. Competitive response
  - 7. Cost
- B. Projection
  - 1. End-use
  - 2. Geographic region
  - 3. Spouts
- C. Conclusion

### Section III:

#### Pouch Construction

- A. Stand-up pouch designs
  - 1. *Doyen*-style pouch

2. *Poucher* pouch
  3. *CornerZip* pouch from Hosokawa
  4. *ID* pouch from Fujimori
  5. *Double Doyen* pouch
  6. Non-*Doyen* pouches with top and bottom gussets
  7. True flat-bottom pouches
  8. *SIP* pouch
  9. Pouch standing on fitment
- B. Partially stable bags and pouches
1. Side-gusseted pouch
  2. Four-corner-seal pouch
  3. *Cheer Pack* pouch
  4. *Spread-R-Pak* pouch
  5. *SipTop* pouch
  6. *Smartcube* k-bottom bag
  7. W-bottom or plow bottom pouch
- C. Standard pouches and bag designs (not stable)
1. Three-side-seal pouch
  2. Four-side-seal pouch
  3. Center-seal pouch
  4. Pillow pouch
  5. End-seal bag
  6. Side-seal bag
  7. Center-seal bag
  8. Pillow bag
  9. Implications for stand-up pouches
- D. Rigid packaging concepts
1. Retort Carton
  2. Paper cans
  3. Aluminum bottle
  4. *TULC* can and *aTULC* can
  5. Implications for stand-up pouches
- E. Spouts
1. Base design
  2. Spout position
  3. Spout cost
  4. No spill spouts
  5. Tamper-evident spouts
  6. Flexible spouts
  7. Concepts to eliminate spout inserting
  8. Specialty
  9. One-piece spouts
  10. Cut-off spouts

- 11. Designer spouts
- 12. Spout summary
- F. Reclosable zippers
  - 1. Zipper styles
  - 2. Zipper construction
  - 3. Zipper developments
  - 4. Zipper summary
- G. Vents
  - 1. Vented pouches with rigid vents
  - 2. Vented pouches with flexible vents
- H. Shapes
- I. New and emerging technologies
  - 1. *Cartridge Pack System*
  - 2. Pouches for carbonated products
- J. Films and laminates
  - 1. Universal requirements
  - 2. Special techniques
  - 3. Pouch suppliers

#### **Section IV:**

##### **Equipment Technology**

- A. Fabricating pre-formed pouches
- B. Pre-formed pouch equipment
  - 1. Dedicated pouch machines
  - 2. Pouch machine suppliers
- C. Filling stand-up pouches
  - 1. Two-step process – making and filling pouches
  - 2. One-step process – horizontal
  - 3. One-step process – vertical
- D. Filling technology developments
  - 1. Liquid fill/seal
  - 2. Form/fill/seal equipment
  - 3. Ultrasonic sealing equipment
  - 4. Other equipment
  - 5. Filler suppliers
  - 6. Inserting fitments
  - 7. Pouch handling
- E. Other developments
  - 1. Food processing techniques
  - 2. New designs

## **Section V:**

### **Economics and Environmental**

- F. Case 1: Stand-up pouch manufacturing (Pet food)
  - 1. Assumptions
  - 2. Economic results
- G. Case 2: Aluminum can manufacturing (Pet food)
  - 1. Assumptions
  - 2. Economic results
- H. Case 3: Comparison of Case 1 and Case 2
  - 1. Material cost
  - 2. Labor cost
  - 3. Transportation cost
  - 4. Plant margin and prices
- I. Case 4: Stand-up pouch filling (Pet food)
  - 1. Assumptions
  - 2. Economic results
- J. Case 5: Aluminum can filling (Pet food)
  - 1. Assumptions
  - 2. Economic results
- K. Case 6: Comparison of Case 4 and Case 5
  - 1. Material cost
  - 2. Labor cost
  - 3. Transportation cost
  - 4. Plant margin and prices
- L. Case 7: Stand-up pouch LCA
  - 1. Energy
  - 2. Greenhouse gas releases
  - 3. End of life
- M. Case 8: Aluminum can LCA
  - 1. Energy
  - 2. Greenhouse gas releases
  - 3. End of life
- N. Case 9: Comparison of Case 7 and Case 8
  - 1. Energy
  - 2. Greenhouse gas releases
  - 3. End of life
- O. Case 10: Stand-up pouch manufacture (Refill)
  - 1. Assumptions
  - 2. Economic results
- P. Case 11: Manufacture a PET bottle (Refill)
  - 1. Assumptions

- 2. Economic results
- Q. Case 12: Comparison of Case 10 and Case 11
  - 1. Material cost
  - 2. Labor cost
  - 3. Transportation cost
  - 4. Plant margin and prices
- R. Case 13: Spouted stand-up pouch filling (Refill)
  - 1. Assumptions
  - 2. Economic results
- S. Case 14: PET bottle filling (Refill)
  - 1. Assumptions
  - 2. Economic results
- T. Case 15: Comparison of Case 13 and Case 14
  - 1. Material cost
  - 2. Labor cost
  - 3. Transportation cost
  - 4. Plant margin and prices
- U. Case 16: Spouted pouch LCA
  - 1. Energy
  - 2. Greenhouse gas releases
  - 3. End of life
- V. Case 17: PET bottle LCA
  - 1. Energy
  - 2. Greenhouse gas releases
  - 3. End of life
- W. Case 18: Comparison of Case 16 and Case 17
  - 1. Energy
  - 2. Greenhouse gas releases
  - 3. End of life

## **Section VI:**

### **Market Analysis**

- A. Trends
  - 1. Consumers
  - 2. Retailers
  - 3. Consumer product companies
- B. Market projection
- C. Liquid food
  - 1. Fruit-flavored drinks
  - 2. Aseptically packaged liquid food
  - 3. Other

- 4. Projection
- D. Food
  - 1. Retorted food
  - 2. Frozen food
  - 3. Prepared drinks
  - 4. Dried fruit
  - 5. Confectionery
  - 6. Salty snacks
  - 7. Dry mixes
  - 8. Other
  - 9. Projection
- E. Pet food
- F. Non-food
  - 1. Detergent
  - 2. Agricultural and chemical
  - 3. Health and beauty
  - 4. Automotive lubricants
  - 5. Projection
- G. Geographic
- H. Retort
- I. Pouch design
- J. Reclosable zipper
- K. Spouts
- L. Pouch filling concept (pre-made versus form/fill/seal)
- M. Summary of projection

**Section VII:**  
**Equipment Supplier Profiles**

**Section VIII:**  
**Producer Profiles**

**Section IX:**  
**Glossary**