Aerosol Overcaps 101
Why are caps important??

1. Dust Cover
2. Prevents accidental discharge
3. Aesthetics
4. Load Factor
5. Can deliver a message
6. “Green” Factor
How are they made?

- Caps are made via an injection molding machine – the machine is known as the “press” and the tool that makes the caps is the “mold”.

March 26, 2009    Aerosol 101
Injection Molding Machine
How does it work?

Injection Molding Basics

Program 1: MACHINE
(excerpt)
To layer pack or not to layer pack.....
Materials

- Polyethylene (HDPE)
- Polypropylene (PP)
- Clarified Polypropylene (CPP)
- Copolymers (Blended)
- Styrolux/K-Resin
- Non-Antistat Polypropylene (NAPP)
Polypropylene

1. Lightweight
2. High compressive strength (top load)
3. Scuff Resistant
4. Retains stiffness and flex
5. Clearer than PE
6. Higher anti-stat levels
Polyethylene

1. Softer material – more crack resistant
2. Does not hold it’s shape when bent
3. Cloudier
4. Faster cycle times
5. Scuffs easily
Other materials

- Clarified PP
  - Use when more clarity is needed

- Styrolux
  - Best clarity, lowest shrinkage

- Non-antistat PP
  - Use when painting, printing or metallizing caps
Can Styles

✓ Aluminum
✓ Straight Walled
✓ Necked In
✓ DS Container
✓ Sexton Can
Aluminum
Straight Side/Necked In
DS Container
Sexton Cans

March 26, 2009  Aerosol 101  Slide 17
Cap Styles
Styles

- Generic designs are mass produced and lower priced. Provides a standard look.
- Custom designs are developed with marketing for a distinctive look to complement the package and product.
Straight Sided

- 202
- 211
- 300

- High Stacker Caps
- Double Shell
- Tamper Resistant DS
- Tamper Proof
- Snap Lock
- Rim Snaps
Necked In

- 112/45mm
- 202/52mm
- 205/57mm
- 211/65mm
- 300/70mm

- Stacker Type
- Double Shell
- Single Shell
- Tamper Resistant/Child Proof
- Spray Thru
Aluminum

- 38mm
- 45mm
- 49mm
- 50mm
- 53mm
- 59mm
- 66mm

- Caps to fit over valve cover
- Double Shell Caps
- Caps to fit over actuators
Single Shell/Double Shell
Why use a single shell cap?

• Will fit a larger actuator – one that is larger than the valve cup
• May use less plastic than a double shell
...and WHY NOT?

• Caps are more size critical with regard to fitment on the can – double shells lock onto the valve cup so are not as critical
• Top load strength is diminished because caps rests on the shoulder radius
• Do not mold as fast as double shells which will affect cycle time (cost)
Functional Caps (or caps that work for a living)

- Spray Thru
- Child Resistant/Elderly Friendly
- Tamper Resistant
- Tamper Proof
- Accessory Holder (Tube Clip)
- Interactive
Spray Thru
Tamper Resistant
Interactive Cap
Tube Clip
Value Added

Printing

Embossing
More value added....

Metallized Cap

Stickers/Labels
Marketing
Marketing Questions

• What is your customer’s business - filler, manufacturer or end product user?

• Does your customer have specific requirements for an overcap - tamper resistant, functional, spray through?

• Convenience vs. cost – large cavitation vs. small, short leadtimes, uniqueness or inventory requirements
More questions....

• What is your competitive edge – a unique feature, distinctive look, low cost?

• What size do you need – can size, double or single shell?

• Premium product or market driven?
Resources

• Caps
  – www.cobraplastics.com
  – www.berryplastics.com
  – www.estylecaps.com
  – Rackow Polymers, Bensonville, IL
  – http://underwoodmold.com
THE END

Thank you!
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