Slide 1

Injection Blow Molding

PL ET 370

Slide 2

Injection Blow Molding

- Current Areas of Use
  - Containers

Slide 3

Injection Blow Molding

- Types
  - Injection Blow
  - Stretch Blow
Slide 4

Injection Blow Molding
- Preform
- Injection Molded Tube
- Reheating Stage
- Blow Stage

Slide 5

Injection Blow Molding
- Injection Blow

Slide 6

Injection Blow Molding
- Stretch Blow
Slide 7
Injection Blow Molding
- Advantages - Injection Blow
  - BiAxial Orientation (Stretch)
  - No Scrap
  - Tighter Toleranced Parts than Extrusion Blow
  - Good Surface Finish

Slide 8
Injection Blow Molding
- Disadvantages - Injection Blow
  - Limited bottle size
  - Higher tooling costs than Extrusion Blow
  - Containers with offset necks are difficult to make

Slide 9
Injection Blow Molding
- Three Stage
Slide 10

Injection Blow Molding

- Reheat Stage
- Injection Moulded
  - Separate Machine
- Transferred to Blow Molding Machine
- Preform is Reheated
  - Below Neck Flange

Slide 11

Blow Molding

- Injection Blow
  - Bottle Weight Variability
    - 1%
  - Surface Finish
    - Good
  - Push-Up Capabilities
    - Excellent
- Extrusion Blow
  - Bottle Weight Variability
    - 3%
  - Surface Finish
    - Poor
  - Push-Up Capabilities
    - Limited because of Pinch-Off

Slide 12

Blow Molding

- Injection Blow
  - Scrap
    - None
  - Neck Finish
    - Excellent Tolerances
  - Mold Cast
    - Higher Cost
    - Longer Life
- Extrusion Blow
  - Scrap
    - 20%-40%
  - Neck Finish
    - Lower Tolerances
  - Mold Cast
    - Lower Cost
    - Shorter Life