Compression Molding
Quality Considerations
& Trouble Shooting Techniques

Quality Check list
Trouble shooting Guide
Common Quality Defects

- Blister
- Short Shots
- Porous Parts
- Orange peel or wrinkly surface
- Gas Burns
- Gas Blush
- Low Gloss
- Warped Parts
- Contamination
- Molded in Flash
- Heavy or thick Flash
- Broken parts
- Off Color Parts
- Excess flash
Trouble Shooting Techniques

- Temperature uniformity is Key. Always check with a pyrometer.
- Note cycles, cavity layout and settings prior to trouble shooting.
- Watch out for any unusual and erratic occurrences.
- One change at a time.
- Choose type of cycle and stick to process guidelines.
- Use the trouble shooting guide.
- Check all possible causes including material, tooling, equipment and operator set up.
Trouble shooting Guide

- **Blistering, Heavy Section**
  - Increase cure
  - Slow close
  - Increase stop duration
  - Early degas
  - Check Mold temp for uniformity

- **Porosity**
  - Increase pressure
  - Reduce Temp
  - Increase stop duration
  - Increase charge weight
  - Introduce earlier breath
Trouble Shooting Guide

- Mold Sticking
  - Raise Mold Temp
  - Increase stop duration
  - Clean Mold
  - Check Undercuts
  - Check Mold Plating
  - Increase Cure

- Warpage
  - Uniform Mold Temp
  - Use Stiffer Material
  - Increase Temp
  - Preheat Longer
  - Make sure mold closes properly
  - Cool uniformly
Trouble Shooting Guide

- **Burned Marks**
  - Reduce Stop
  - Reduce Mold Temp
  - Minimize degas

- **Dull Surface**
  - Adjust Mod Temp
  - Extend stop
  - Slow Close
  - Check Mold Surface

- **Heavy Flash**
  - Check material flow
  - Reduce Charge
  - Reduce Temp
  - Close on Low pressure and go into high pressure sooner
  - Check clearances
Trouble Shooting Guide

**Dimpled Surface**
- Slow close
- Lower temp
- Increase charge

**Orange Peal**
- Preheat with longer stop
- Lower temp
- Close slowly on low pressure. Delay two seconds before high pressure
Trouble Shooting Guide

- Pitted Surface
  - Use stiffer material
  - Increase stop duration

- Cracking After molding
  - Check Ejector pins for proper action
Trouble Shooting Guide

**Contamination**

- Follow House keeping rules
- Keep press & powder box clean
- Avoid cleaning with air blast
- Avoid mixing different colors and types

- Check and eliminate press as source of contamination
- Cover powder container at all times
- Check felt. Reverse or change as required
- Make sure that feed-board air blast is working properly