

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 Peel

- 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