Setup

- ☐ Choose a mesh – Shell mesh provides best balance of accuracy and solve time for thin walled parts. Solid mesh is accurate for any type of model but provides greater accuracy for models with complex geometry.
- ☐ Apply polymer
- ☐ Set process parameters (fill, pack, and/or warp settings)
- ☐ Add boundary conditions (ie. injection locations)
- ☐ Run desired analysis

Troubleshooting

- ☐ Refine mesh to capture complex geometry
- ☐ Check that you have clean, solid geometry
- ☐ Ensure proper number of mesh groups (one per each solid body)
- ☐ Use mesh edits to create watertight mesh
- ☐ Contact your VAR for any other error or problems that cannot be resolved by the above steps

Check Results

- ☐ Ensure that the cavity filled within the appropriate injection pressure limit
- ☐ If multi-cavity mold, check that runner system is balanced
- ☐ Use engineering insight to determine appropriate design changes in order to reduce air traps, weld lines, etc.
- ☐ For optimal accuracy perform run sequence in the following way if cooling is included in your plastics package
    - Flow → Cool → Flow → Pack → Warp

Convergence Analysis

In any FEA, convergence analysis needs to be done in order to confirm that solution is independent of mesh size

- ☐ Re-run analysis with subsequent mesh refinements (each refinement should generally double number of nodes)
- ☐ Calculate percent change in solution values until solution has converged to less than 4 or 5%