

Troubleshooting Guide for COMPRESSION MOLDING Phenolic & Granular Polyester

| CORRECTIONS | Mold Temperature | Mold Closing Speed | Preheat Temperature | Rate of Preheat | Clamp Pressure | Charge Weight | Cure Time | Refer to Comment Sheet. |
|-------------------------------|------------------|--------------------|---------------------|-----------------|----------------|---------------|-----------|-------------------------|
| | PROBLEM | | | | | | | |
| Bulge Opposite Insert | 3I | | 4I | | | | | 1A & 2B |
| Cure Blister w/Preforms | 4I | 5D | 1I | 2D | | | 7I | 3P & 6C |
| Cure Blister w/Cold Powder | 2I | 4D | | | | | 6I | 1R, 3E & 5C |
| Dull Appearance | 1I | 3D | 2I | | | | | 4F & 5J |
| Flash - Excessive | 3I | 4D | 2I | | 6I | 1D | | 5G |
| Flow Lines | 1D | 3D | 2D | | | | | |
| Hard Spots or Precure | 4D | 3I | | | | | | 1H & 2P |
| Mold Staining | 4I | 5D | 3I | | | | | 1N & 2J |
| Mottled Surface Appearance | 3D | | 2D | | | 1I | | |
| Nonfills or Short Shots | 4D | 3I | 2I | | | 1I | | 5N |
| Orange Peel | 3I | 1D | 2I | | | | | |
| Part Shrinkage - Excessive | 2I | 1I | 3I | | | | 5I | 4N |
| Part Shrinkage - Insufficient | 1D | | | | | | 3D | 2N |
| Sink Marks | 2I | 3I | | | | 1I | | 4N |
| Skin Blisters | 4D | 1D | | | | 3I | | 2C & 5N |
| Sticking in Mold | 2I | | | | | 3D | 5I | 1K & 4F |
| Trapped Gas-Burn Marks | 4D | 3I | 2D | | | | | 1N |
| Warpage When Ejected | | | | | | | | 1K, 2F & 3L |
| Warpage After Cooling | 1I | | 2I | | | | 4I | 3N & 5M |

Legend: Number = Priority I = Increase D = Decrease Other Letters = Comment ID

**Comment Sheet for COMPRESSION MOLDING
Phenolic & Granular Polyester**

- A. Heat inserts to mold temperature before using.
- B. Use a shorter insert.
- C. Add a breathe cycle or try changing the current breathe cycle.
- E. Use minimum charge weight.
- F. Check the condition of the mold plating and re-plate if necessary. If the mold is not plated, polishing and plating may be necessary.
- G. Check the parting line for wear or damage and repair as needed.
- H. Speed up the placing of the preforms into the mold.
- J. Polish those areas of the mold that tend to trap gas and stain.
- K. Check the mold for wear or staining. Polish out any mold stains and remove any undercuts that may have been worn into the mold.
- L. Add undercuts to hold the part in the moving half of the mold until it is ready to be ejected.
- M. Use shrink fixtures to hold the parts flat as they cool.
- N. Check the vents and correct as needed. (See Section #13 "Thermoset Compression Mold Design Tips")
- P. Change the placement of the preforms in the cavities.
- R. Warm the material to 66°C (150°F) if possible before molding it.