

## POLYMER RESOURCES LTD. INJECTION MOLDING TROUBLESHOOTING GUIDE

	Check melt temperature	Check mold temperature	Check backpressure	Check check ring assembly	Check cleanliness of machine and area	Check condition of screw	Check contamination	Check cushion	Check dead spot potential	Check dryer	Check filler	Check for excessive fines	Check for hang ups in melt delivery system	Check for moisture on surface of mold	Check for uniform filling	Check gate angle for proper impingement	Check gate freeze	Check gate location	Check heater bands and thermocouples	Check high shear potential	Check hold/pack	Check injection pressure	Check injection pressure, speed and time	Check injection velocity	Check machine hydraulics and clamp
Black Specks	✓	✓		5	8	4	1					2	6						7	3					
Blisters and Bubbles	✓	✓	5									2													
Brittleness	✓	✓					2			3										4					
Burns	✓	✓	6						5				4						8	3				2	
Crazing/Cracking	✓	✓					1																		
Delamination	✓	✓					1													2					
Dimensional Issues	✓	✓															3			6					
Flash	✓	✓																					4	6	
Gate Blush	✓	✓														4	2				3		1		
Jetting/Worming	✓	✓														1								3	
Nozzle Issues (Drool/Freeze/Stringing)	✓	✓																	4						
Poor Surface Finish	✓	✓					1	3		2								6					4		
Race Tracking	✓	✓																2							
Sinks/Voids	✓	✓															5	3					4		
Splay	✓	✓	4						7	1				10					8	6					
Sticking - Parts	✓	✓						4														5			
Warp	✓	✓															2				3				
Weld/Knit Lines	✓	✓									4				3					5				2	

Items to consider when addressing your problem:

- Ensure equipment is working properly (dryers, heater bands, thermocouples, etc.)
- Start at the mid-points of PRL processing recommendations.
- Accurate melt and mold temperature measurement is critical. Always use a pre-heated pyrometer (20-30 F above the expected temperature) and hold in place for at least 30 seconds.
- Change one thing at a time only, and document your changes.

