

Injection molding defect quick-fix chart

17 common defects, their usual causes and the first thing to check



Defect	Wet resin	Melt too hot	Melt or mold too cold	Pack and hold too low	Poor venting	Fill too fast	Contamination	Resin or lot change	Check first
Splay and silver streaks	●	●					●	●	Check resin moisture and dryer dew point, then melt temperature
Voids and bubbles	●	●	●	●					Raise pack and hold pressure and time; confirm the resin is dry
Short shots			●	●	●			●	Raise shot size or injection pressure; check vents and melt temperature
Sink marks		●		●				●	Raise hold pressure and time until the gate freezes; lower melt temperature
Weld lines			●	●	●				Raise melt and mold temperature; vent at the weld
Burn marks		●			●	●			Clean or add vents; slow injection at the end of fill
Flash	●	●				●		●	Check clamp force and parting-line wear; lower injection speed or pressure
Jetting			●			●			Slow the first stage of injection; check gate size and position
Black specks		●					●	●	Purge; check screw and hot runner for degraded material; check regrind
Color varies		●					●	●	Check colorant feeder and let-down ratio; raise back pressure for mixing
Warped parts			●	●				●	Balance mold-half temperatures; extend cooling; even out packing
Flow lines and flow marks			●	●					Raise melt temperature, mold temperature and injection speed
Delamination	●		●				●		Look for mixed or contaminated resin; dry the material
Stringing and nozzle drool	●	●						●	Lower nozzle temperature; add decompression; confirm the resin is dry
Parts sticking in the mold		●						●	Check draft and polish; adjust mold temperature; reduce packing
Yellowed or discolored parts		●					●	●	Lower melt temperature and residence time; look for barrel hot spots
Parts out of tolerance			●	●				●	Stabilize mold temperature and cushion; check the lot and moisture