Problem	Possible Causes	Possible Solutions
Flow Marks	Melt and / or mould too cold	1. Increase barrel and nozzle temperatures. 2. Increase melt and/or mould temperature. 3. Increase injection rate. 4. Increase screw speed and back pressure. 5. Check suitability of screw.
	Mould design	1. Change gate location. 2. Enlarge gates. 3. Enlarge runners. 4. Add additional flow-restricting zones (e.g. sprue pullers) to runners.
Short Shots/Filling Problems	Air entrapment due to insufficient venting	1. Check for obstruction of vents. 2. Check vent locations. 3. Enlarge vents. 4. Change filling behaviour by reducing or increasing injection rate and/or pressure. 5. Add vacuum assist to vents
	Runner system	1. Check for obstruction of gate. 2. Enlarge gate. 3. Enlarge runners.

	Melt and / or mould too cold	1. Increase barrel and nozzle temperatures. 2. Increase mould temperature. 3. Increase injection rate. 4. Increase screw speed.
	Shot weight	1. Increase shot weight. 2. Increase melt cushion.
Sink Marks	Hold pressure too low	1. Increase holding pressure.
	Melt and / or mould too hot	1. Reduce barrel and nozzle temperatures. 2. Reduce mould temperature. 3. Reduce screw speed.
Burn Marks	Melt and / or mould too hot	1. Reduce barrel and nozzle temperatures. 2. Reduce mould temperature. 3. Reduce screw speed.
	Heater(s) stuck on	1. Check thermocouples and heater bands.
	Mould design	1. Enlarge vents. 2. Check for obstruction of vents. 3. Add vacuum assist to vents. 4. Check vent locations.
Odour or yellowing	Melt and / or mould too hot	1. Reduce barrel and nozzle temperatures. 2. Reduce mould temperature. 3. Reduce injection rate.

		4. Reduce screw speed and back pressure. 5. Check temperature of hot runners (if used).
Flashing	Injection pressure / rate too high	1. Reduce injection pressure / rate. 2. Increase clamp pressure. 3. Reduce injection rate.
	Melt and / or mould too hot	1. Reduce barrel and nozzle temperatures. 2. Reduce mould temperature. 3. Reduce screw speed.

Problem	**Possible Causes**	**Possible Solutions**
Part distortion/ Warpage	Too much orientation	1. Increase melt and mould temperature. 2. Reduce injection rate.
	Part is over-packed	1. Reduce holding pressure. 2. Match injection time to mould fill time.
	Uneven mould fill	1. Change gate locations. 2. Ensure uniform mould temperature. 3. Increase injection rate and pressure.
Black specks or undispersed particles	Contamination	1. Purge with low-MFI PP or HDPE. 2. Check that colour concentrate is based on PP or PE, not PVC.

Sticking in mould	Part is too hot	1. Reduce barrel and nozzle temperatures. 2. Reduce mould temperature. 3. Increase cooling time.
	Part is over-packed	1. Reduce shot weight and find correct fill point.
	Mould design	1. Increase draft angles. 2. Use non-stick surface treatment. 3. If necessary, erode mould.
Lump formation at gate	Moisture	1. Dry pellets. 2. If using vented screw, check for obstruction of vent. 3. Add vacuum assist to vents.
Voids	Melt freezes too quickly	1. Increase mould temperature. 2. Increase screw speed and pressure.
	Moisture	1. Dry pellets. 2. If using vented screw, check for obstruction of vent. 3. Add vacuum assist to vents.
	Holding pressure too low	1. Increase holding pressure.
	Insert moulding: Inserted part is too cold	1. Preheat part (caution: heat surface only to approx. 80° C – 100° C.)