

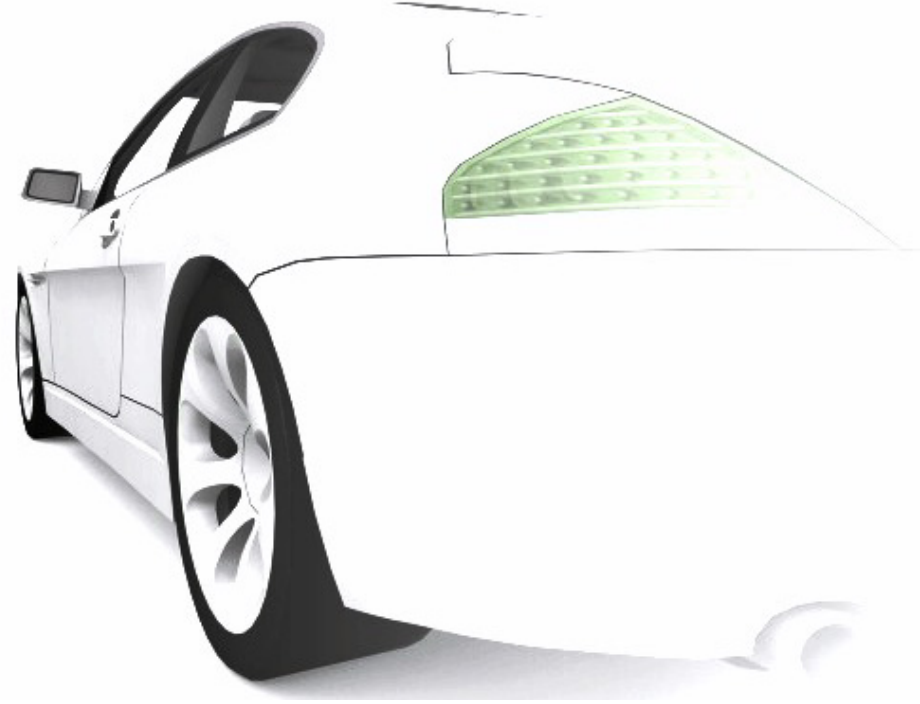


# TROUBLESHOOTING GUIDE

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Troubleshooting Guide \_ #09marcom28.v2 (Juin 2009)

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# TROUBLESHOOTING GUIDE

OBSERVED DEFECTS		CAUSES	SOLUTIONS
Dimensions	Incomplete mold fill	Shot weight	Check switchover point Increase melt cushion Increase shot weight
		Injection parameters	Increase injection pressure Modify injection speed and injection profile
		Insufficient feeding	Check for obstruction in venting system Enlarge gates Enlarge runners
		Temperature too low	Increase material temperature Increase screw speed and back pressure when dosing Increase mold temperature
	Flash	Insufficient venting	Check for obstruction in venting system Decrease closing pressure Increase venting size Check vent location
		Temperature too high	Decrease material temperature Decrease screw speed and back pressure when dosing Decrease mold temperature Check thermocouples and heaters
		Injection parameters	Check switchover point Check closing pressure Decrease holding pressure & time and modify holding pressure Decrease injection speed and modify injection profile
Aspect	Flow lines	Injection parameters	Modify injection speed and injection profile
		Temperature too low	Increase material temperature Increase screw speed and back pressure when dosing Increase mold temperature
	Mold design	Enlarge gates Enlarge runners Change gate location Grain / engrave mold surface	

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OBSERVED DEFECTS		CAUSES	SOLUTIONS
Aspect	Burning	Temperature too high	Decrease material temperature Decrease screw speed and back pressure when dosing Decrease mold temperature Check thermocouples and heaters
		Insufficient venting	Check for obstruction in venting system Decrease closing pressure Increase venting size Check vent location
		Injection parameters	Check switchover point Decrease injection speed and modify injection profile Decrease holding pressure & time and modify holding pressure
		Moisture	Dry pellets
	Yellowing or odour	Temperature too high	Decrease material temperature Decrease screw speed and back pressure when dosing Decrease mold temperature Check thermocouples and heaters
	Black specs Skin marks	Contamination	Check for material pollution Purging Screw, barrel and nozzle cleaning
		Injection parameters	Check switchover point Modify holding pressure & time and modify holding pressure
		Mold temperature too high	Decrease mold temperature
		Mold design	Enlarge gates
	Clump formation at gates	Injection parameters	Check switchover point Modify holding pressure, time and profile Decrease injection speed and modify injection profile
		Temperature too high	Decrease material temperature Decrease screw speed and back pressure when dosing Decrease mold temperature
		Mold design	Enlarge gates
Change gate location Look for creating a cold slug, or check status if one is present			



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OBSERVED DEFECTS		CAUSES	SOLUTIONS
Aspect	Matt / Glossy areas	Insufficient venting	Check for obstruction in venting system Decrease closing pressure Increase venting size Check vent location
		Mold temperature	Modify mold temperature Check for consistency of mold heating system
		Injection parameters	Increase injection speed and modify injection profile Modify holding pressure, time and profile
	Visible weld line	Temperature too low	Increase material temperature Increase screw speed and back pressure when dosing Increase mold temperature
		Injection parameters	Increase injection speed and modify injection profile Increase holding pressure & time and modify holding profile
		Insufficient venting	Check for obstruction in venting system Decrease closing pressure Increase venting size Check vent location
Parts	Distortion Too high orientation	Mold design	Change gate location
		Temperature too low	Increase material temperature Increase screw speed and back pressure when dosing Increase mold temperature
		Injection parameters	Check switchover point Decrease shot weight Modify hold pressure, time and profile

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OBSERVED DEFECTS		CAUSES	SOLUTIONS	
Parts	Distortion	Over packing	Injection parameters	Check switchover point Decrease shot weight Modify holding pressure, time and profile
			Temperature too high	Decrease material temperature Decrease screw speed and back pressure when dosing Decrease mold temperature
			Mold design	Change gate location and gate size
	Cracking		Injection parameters	Check switchover point Modify holding pressure, time and profile Decrease injection speed and modify injection profile
			Temperature too low	Increase material temperature Increase screw speed and back pressure when dosing Increase mold temperature
			Moisture	Dry pellets
	Brittleness		Injection parameters	Decrease injection speed and modify injection profile Increase shot weight
			Temperature too high	Decrease material temperature
	Voids		Moisture	Dry pellets
			Insufficient venting	Check for obstruction in venting system Decrease closing pressure Increase venting size Check vent location
			Injection parameters	Modify injection speed and injection profile
	Delamination		Temperature too low	Increase material temperature Increase screw speed and back pressure when dosing Increase mold temperature
			Contamination	Purging Check for material pollution
			Moisture	Dry pellets

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OBSERVED DEFECTS		CAUSES	SOLUTIONS
Demolding	Parts too hot	Injection parameters	Increase cooling time
		Temperature too high	Decrease material temperature Decrease mold temperature
	Over packing	Injection parameters	Check switchover point Decrease shot weight Decrease holding pressure and modify holding profile
		Temperature too high	Decrease material temperature Decrease mold temperature
	Mechanical sticking	Suction effect	Use demolding agent
		Mold design	Grain / Engrave mold surface Increase draft angle
	Sprue break or sprue retention	Injection parameters	Increase cooling time
		Temperature too high	Decrease mold temperature Decrease material temperature
		Mold design	Decrease gate size

## Special comments :

Multibase offers a wide Range of thermoplastic elastomers called Multiflex®.

These materials, which have the same mechanical properties as vulcanized elastomers, may be processed using equipment for thermoplastics with all their inherent advantages.

## Recycling

Multiflex® Ranges are 100% recyclable without properties loss. We recommend a maximum level of 10% of recycling material in virgin material.

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