



Injection Molding Process Parameter Guide

Material	Family	Melt Temp (°F)	Mold Temp (°F)	Dry Temp (°F)	Dry Time	Max Moisture %	Notes
Polypropylene (PP)	Commodity	380–450	70–120	Not required	—	N/A	Very forgiving material
Polyethylene HDPE	Commodity	350–430	70–120	Not required	—	N/A	Good flow
Polyethylene LDPE	Commodity	320–390	70–110	Not required	—	N/A	Flexible parts
PVC (Rigid)	Commodity	330–390	80–120	Not required	—	N/A	Avoid overheating
ABS	Engineering	400–480	120–180	175–185	2–4 hr	0.10%	General engineering plastic
Polycarbonate (PC)	Engineering	520–600	180–250	250–275	3–4 hr	0.02%	Needs very dry resin
Nylon PA6 / PA66	Engineering	480–550	140–190	175–185	4–6 hr	0.20%	Very moisture sensitive
PBT	Engineering	480–520	130–170	250–265	3–4 hr	0.02%	Polyester family
Acetal (POM)	Engineering	370–420	170–210	Not required	—	0.20%	Excellent dimensional stability
PMMA (Acrylic)	Engineering	430–480	120–160	175–200	2–3 hr	0.05%	Optical clarity
PET	Engineering	500–550	150–200	300–320	4–6 hr	0.005%	Extremely moisture sensitive
PEEK	High Performance	650–750	300–350	300–320	3–4 hr	0.02%	Very high temp material
PEI (Ultem)	High Performance	640–720	275–350	300	3–4 hr	0.02%	High temp electrical
PPS	High Performance	570–650	275–325	300	2–4 hr	0.02%	Chemical resistance
PSU	High Performance	650–720	250–300	250–275	3–4 hr	0.02%	Medical & aerospace