



Document Process Data for Injection Moulding

Description **PPO (Polyphenyleneoxide)**

Application Injection Moulding

Structure	Amorphous
General Properties	Hard, high resilience, high thermal and dimensional stability. Excellent electrical properties.
Barrel Temperature	(decrease 15°C for flame retardant grades, V0/V2)
	Feed Zone 70 – 100 °C
	Zone 1 240 – 270 °C
	Zone 2 260 – 300 °C
	Zone 3 260 – 310 °C
	Zone 4 260 – 310 °C
	Zone 5 260 – 310 °C
	Nozzle 260 – 300 °C
Melt temperature	280 – 300 °C
Mould temperature	100 – 120 °C
Injection pressure	1100 – 1700 bar
Post-pressure	Between 30 and 60% of injection pressure, medium-high post-pressure time
Counterpressure	50 – 100 bar
Injection speed	High.
Screw speed	Equal to peripheric speed of 0.5 m/s
Metering	25 – 80% of barrel volume
Cushion	5 – 10 mm, depends on metering and screw diameter
Drying	2 hours at 100°C
Recycle	Maximum 20% of regrinded material. This percentage decreases for technical and aesthetic parts.
Shrinkage	0.5 – 0.7% (for unfilled product)
Barrel equipment	Three-section screw, L:D = 25 , non-return valve, free-flow nozzle.
Quenching	Purge with PP or PEHD.