



**Document** Process Data for Injection Moulding



**Description** PS

**Application** Injection Moulding

Structure	Amorphous
Density	1,05g/cm <sup>3</sup> (unfilled)
General Properties	Hard, stiff, brittle. Low hygroscopicity. Low chemical resistance.
Barell Temperature	(decrease 15°C for flame retardant grades)
	Feed Zone 30 – 50 °C
	Zone 1 170 – 210 °C
	Zone 2 180 – 230 °C
	Zone 3 210 – 260 °C
	Zone 4 220 – 260 °C
	Zone 5 220 – 260 °C
	Nozzle 220 – 260 °C
Melt temperature	220 – 260 °C
Mould temperature	20 – 55 °C
Injection pressure	50 – 120 bar
Post-pressure	Between 30 and 60% of injection pressure, low post-pressure time
Counterpressure	50 – 120 bar
Injection speed	High
Screw speed	Equal to peripheric speed of 1.2 m/s
Metering	0.5 – 4.0 diameters
Cushion	2 – 8 mm, depends on metering and screw diameter
Drying	4 hours at 80°C
Recycle	100% of regrinded material. This percentage decreases for technical and aesthetic parts.
Shrinkage	0.3 – 0.6%
Barrel equipment	Standard screw, non-return valve, free-flow nozzle
Quenching	Not necessary to purge with other materials. Purge with natural product suggested after flame retardant processing.

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