



## CoolPoly® E5101 Thermally Conductive Polyphenylene Sulfide (PPS)

CoolPoly E5101 is a thermally conductive injection molding resin based on a polyphenylene sulfide (PPS) matrix. CoolPoly E5101 is electrically conductive. Thermally conductive polymers like CoolPoly E5101 cool faster than standard injection molding grade resins.

### Typical Injection Molding Conditions

Temperature Settings	SI /Metric	English
Rear Zone	270 - 300 °C	520 - 570 °F
Center Zone	295 - 320 °C	560 - 610 °F
Front Zone	304 - 330 °C	580 - 630 °F
Nozzle	310 - 330 °C	585 - 630 °F
Melt	310 - 330 °C	590 - 625 °F
Mold	135 - 180 °C	275 - 350 °F

### Pressure Settings

Injection	6.2 - 13.8 MPa	900 - 2000 psi
Hold	2.1 - 6.9 MPa	300 - 1000 psi
Back	0.2 - 0.7 MPa	25 - 100 psi

### Injection Settings

Fill	moderate - fast mm/sec	moderate - fast in/sec
Screw	40 - 150 rpm	40 - 150 rpm
cushion	.5 - 1.3 cm	.2 - .5 inch

### Drying Conditions

Time & Temperature	4-6hrs @ 105 °C	4-6hrs @ 225 °F
Dew Point	-40 °C	-40 °F
Moisture Content	0.1%	0.1%

### Additional Information

A Screw compression ratio of 2.5 or less is recommended.

A reverse taper nozzle is recommended.

A mold surface temperature between 190F and 275F should be avoided as parts will have a varying degree of crystallinity leading to poor dimensional and longterm thermal stability.

A2 or D2 mold steel is recommended (Rc 60 or higher).

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