



CoolPoly® D5506 Thermally Conductive Liquid Crystalline Polymer (LCP)

CoolPoly D5506 is a thermally conductive injection molding resin based on a liquid crystal polymer matrix. CoolPoly D5506 is electrically insulative. Thermally conductive polymers like CoolPoly D5506 cool faster than standard injection molding grade resins.

Typical Injection Molding Conditions

Temperature Settings	SI /Metric	English
Rear Zone	330 - 360 °C	630 - 680 °F
Center Zone	340 - 370 °C	640 - 700 °F
Front Zone	345 - 380 °C	650 - 720 °F
Nozzle	350 - 382 °C	660 - 720 °F
Melt	349 - 393 °C	660 - 740 °F
Mold	93 - 177 °C	200 - 350 °F

Pressure Settings

Injection	35 - 70 MPa	5000 - 10000 psi
Hold	7 - 35 MPa	1000 - 5000 psi
Back	0 - 0.35 MPa	0 - 50 psi

Injection Settings

Fill	- fast	- fast
Screw	75 - 150 rpm	75 - 150 rpm
cushion	1 - 1.3 cm.	.3 - .5 inch.

Drying Conditions

Dew Point	-34 °C	-30 °F
Moisture Content	0.01 %	0.01 %
Time & Temperature	2-4hrs@ 180 °C	2-4hrs@ 355 °F

Additional Information

A low compression screw (less than 3:1) is recommended. The use of a free flowing nozzle is recommended. A free flowing non-return valve with excellent sealing ability is recommended. Reverse taper nozzles are preferred if the diameters are large and cold slugs or drooling occurs. Suckback should be minimum when necessary.

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