



CoolPoly® E4505 Thermally Conductive Polycarbonate (PC)

CoolPoly E4505 is a thermally conductive injection molding resin based on a polycarbonate (PC) matrix. CoolPoly E4505 is electrically conductive. Thermally conductive polymers like CoolPoly E4505 cool faster than standard injection molding grade resins.

Typical Injection Molding Conditions

Temperature Settings	SI /Metric	English
Rear Zone	280 - 290 °C	535 - 555 °F
Center Zone	290 - 300 °C	555 - 570 °F
Front Zone	295 - 310 °C	565 - 590 °F
Melt	295 - 310 °C	565 - 590 °F
Mold	70 - 95 °C	160 - 200 °F

Pressure Settings

Injection	75 - 150 MPa	11000 - 22000 psi
Hold	55 - 100 MPa	8000 - 15000 psi
Back	0.1 - 0.4 MPa	15 - 60 psi

Injection Settings

Fill	moderate - fast	moderate - fast
Screw	100 - 150 rpm	100 - 150 rpm

Drying Conditions

Time & Temperature	4hr @ 105 °C	4hr @ 225 °F
Dew Point	-30 °C	-20 °F

Additional Information

A low compression screw (less than 2:1) is recommended.

A 2.5mm minimum gate size is recommended for this material.

Processing at the high end of the melt temperature and mold temperature is recommended for this material.

The information contained herein is provide for preliminary evaluation of the product. Due to the nature of differences in machine and tooling design, adjustments to the processing conditions are expected to be necessary to achieve optimal results. CoolPolymers extends no warranties, makes no representations and assumes no responsibility as to the accuracy or suitability of this information or this product for any purchaser's or user's use or for any consequence of its use. Cool Polymers disclaims any warranty of merchantability or warranty of fitness for any particular use. All statements, technical information and responsibility. Users shall determine the suitability of the products for their own intended application.