



## CoolPoly® E3605 Thermally Conductive Polyamide 4,6 (PA 4,6)

CoolPoly E3605 is a thermally conductive injection molding resin based on a Polyamide (PA 4,6) matrix. CoolPoly E3605 is electrically conductive. Thermally conductive polymers like CoolPoly E3605 cool faster than standard injection molding grade resins.

### Typical Injection Molding Conditions

Temperature Settings	SI /Metric	English
Rear Zone	280 - 310 °C	540 - 590 °F
Center Zone	300 - 315 °C	570 - 600 °F
Front Zone	305 - 325 °C	580 - 620 °F
Nozzle	290 - 315 °C	550 - 600 °F
Melt	310 - 325 °C	590 - 620 °F
Mold	105 - 165 °C	225 - 325 °F

### Pressure Settings

Injection	6.2 - 10.4 MPa	900 - 1500 psi
Hold	2.1 - 5.2 MPa	300 - 750 psi
Back	0 - 0.35 MPa	0 - 50 psi

### Injection Settings

Fill	moderate - fast mm/sec	moderate - fast in/sec
Screw	50 - 150 rpm	50 - 150 rpm
cushion	0 - 0.63 cm.	0 - 0.25 inch.

### Drying Conditions

Starting Moisture Content			
0.05-0.2%	2-4 hrs @	80 °C	2-4 hrs @ 175 °F
0.2-0.5%	2-4 hrs @	80 °C	2-4 hrs @ 175 °F
0.2-0.5%	12-24 hrs @	104 °C	12-24 hrs @ 220 °F
Dew Point		-40 °C	-40 °F

### Additional Information

- A low compression screw (less than 2.5:1) is recommended.
- Due to drool a reverse taper nozzle is suggested
- During startup raise nozzle temperature until process stabilizes to help prevent initial nozzle freeze-off
- This material, when shipped in 55 lb bags or Gaylords, is packaged at a maximum moisture content level of 0.1%.
- Material should be dried to a moisture content level of .05% or less prior to injection molding.
- Material is moisture sensitive. During processing use of a preheated desiccant dryer 175F is advised to keep material dry.
- Immediately close and seal any bag or container of unused material.

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