CoolPoly® D3606 Thermally Conductive Polyamide 4,6 (PA 4,6)

CoolPoly D3606 is a thermally conductive injection molding resin based on a Polyamide 4,6 (PA 4,6) matrix. CoolPoly D3606 is electrically insulative. Thermally conductive polymers like CoolPoly D3606 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 - 320 °C	570 - 610 °F
Front Zone	310 - 325 °C	590 - 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	5.2 - 10.4 MPa	750 - 1500 psi
Hold	1.7 - 5.2 MPa	250 - 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%	4-8 hrs @ 80 °C	4-8 hrs @ 175 °F
>0.5% or unkown	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.