

Technical Information



LUPOY PC 8000-05

Polycarbonate Resin

Introduction

LUPOY PC 8000-05 polycarbonate(PC) siloxane copolymer resin is designed for extrusion and injection molding products. It exhibits an excellent low temperature ductility and good physical property balance of heat resistance, transparency and impact strength.

Main Characteristics

- Low Temperature ductility
- No Mold release agent

Applications

- No UV absorbers
- Compounds
- Packaging applications
- Small appliances

Properties ¹	Test Method	Value	English Units	Value	SI Units
Physical					
Melt Flow Rate (300 °C /1.2 kg)	ASTM D 1238	0.0077	lb/10 min	3.5	g/10 min
Density	ASTM D 792 ISO 1183	75	lb/ft ³	1,200	kg/m ³
Mold Shrinkage	ASTM D 955	0.005~0.007	in/in	0.005~0.007	mm/mm
Water Absorption @ 24 hrs, 23°C	ASTM D 570 ISO 62	0.12	%	0.12	%
@ equilibrium, 50%RH, 23°C	ASTM D 570 ISO 62	0.20	%	0.20	%
Optical					
Light Transmittance (3.0mm)	ASTM D 1003 ISO 13468-1	>88	%	>88	%
Haze (3.0mm)	ASTM D 1003 ISO/DIS 14782	<1.0	%	<1.0	%
Thermal					
Deflection Temperature Under Load (DTUL) @ 3.2 mm @ 66 psi (0.45 MPa), annealed @ 264 psi (1.8 MPa), annealed @ 264 psi (1.8 MPa), unannealed	ASTM D 648	269 266 244	°F °F °F	132 130 118	°C °C °C
Deflection Temperature Under Load (DTUL) @ 264 psi (1.8 MPa), unannealed	ISO 75-2/A	239	°F	115	°C
Vicat Softening Point, 50°C /hr, 50N Load	ASTM D 1525 ISO 306/B120	280	°F	138	°C
Coefficient of Linear Thermal Expansion, @ -40 to 82°C	ASTM D 696	39 x 10 ⁻⁶	in/in/°F	70 x 10 ⁻⁶	mm/mm/°C
Mechanical					
Tensile Yield Strength ²	ASTM D 638 ISO 527-2	8,400 8,270	psi psi	58 57	MPa MPa
Ultimate Tensile Strength	ASTM D 638 ISO 527-2	9,860 9,280	psi psi	68 64	MPa MPa
Elongation at Yield	ASTM D 638 ISO 527-2	6 6	% %	6 6	% %
Elongation at Break	ASTM D 638 ISO 527-2	120 110	% %	120 110	% %
Tensile Modulus	ASTM D 638 ISO 527-2	317,000 347,000	psi psi	2,180 2,390	MPa MPa
Flexural Strength	ASTM D 790 ISO 178	12,500 11,900	psi psi	86 82	MPa MPa
Flexural Modulus	ASTM D 790 ISO 178	294,000 281,000	psi psi	2,030 1,940	MPa MPa
Notched Izod Impact ³ @ 23 °C	ASTM D 256 ISO 180	17 33	ft-lb/in ft-lb/in ²	890 70	J/m kJ/m ²
Unnotched Izod Impact @ 23 °C	ASTM D 256 ISO 180	No break No break		No break No break	
Notched Izod Impact ³ @ -30 °C	ASTM D 256 ISO 180	14 28	ft-lb/in ft-lb/in ²	760 60	J/m kJ/m ²
Rockwell Hardness	ASTM D 785 ISO 2039-2	120	R Scale	50	M Scale
Electrical					
Volume Resistivity @ 23 °C, dry	ASTM D 257	1.0 x 10 ¹⁵	Ω-cm	1.0 x 10 ¹⁵	Ω-cm

1. Typical properties; not to be constructed as specifications.

2. Tensile Test @ 23 °C; 50 mm/min.

3. 0.125 in; 10 mil notch (3.2 mm; 0.25 mm notch).