Lupoy® 8001-10

LG Chem Ltd. - Polycarbonate

Saturday, July 20, 2019

General Information

Product Description

LUPOY PC 8001-10 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 UV absorbers
- Mold release agent included

Applications

- Compounds
- Small appliances
- Packaging applications

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Additive	• Mold Release		
Features	• Ductile • Good Clarity	• Good Heat Resistance • Good Impact Resistance	
Uses	• Appliances	• Compounding	• Packaging
Appearance	• Clear/Transparent		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.20	g/cm³	ASTM D792
Density	1.20	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	10	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.50 to 0.70	%	ASTM D955
Water Absorption (24 hr, 23°C)	0.12	%	ASTM D570
Water Absorption (24 hr, 23°C)	0.12	%	ISO 62
Water Absorption (Equilibrium, 23°C, 50% RH)	0.20	%	ASTM D570
Water Absorption (Equilibrium, 23°C, 50% RH)	0.20	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2240	MPa	ASTM D638
Tensile Modulus	2460	MPa	ISO 527-2
Tensile Strength [2] (Yield, 23°C)	58.0	MPa	ASTM D638
Tensile Stress (Yield, 23°C)	57.0	MPa	ISO 527-2/50
Tensile Strength (Break)	68.0	MPa	ASTM D638
Tensile Stress (Break)	64.0	MPa	ISO 527-2
Tensile Elongation (Yield)	6.0	%	ASTM D638
Tensile Strain (Yield)	6.0	%	ISO 527-2
Tensile Elongation (Break)	120	%	ASTM D638

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Mechanical	Nominal Value	Unit	Test Method
Tensile Strain (Break)	110	%	ISO 527-2
Flexural Modulus	2100	MPa	ASTM D790
Flexural Modulus	2000	MPa	ISO 178
Flexural Strength	91.0	MPa	ASTM D790
Flexural Stress	87.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact [3]			ASTM D256
-30°C, 3.18 mm	680	J/m	
23°C, 3.18 mm	850	J/m	
Notched Izod Impact Strength			ISO 180
-30°C	54	kJ/m²	
23°C	67	kJ/m²	
Unnotched Izod Impact (23°C)	No Break		ASTM D256
Unnotched Izod Impact Strength (23°C)	No Break		ISO 180
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			ASTM D785
M-Scale	50		
R-Scale	120		
Rockwell Hardness			ISO 2039-2
M-Scale	50		
R-Scale	120		
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Annealed, 4.00 mm	133	°C	
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 4.00 mm	119	°C	
Heat Deflection Temperature (1.8 MPa, Unannealed)	116	°C	ISO 75-2/A
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Annealed, 4.00 mm	131	°C	
Vicat Softening Temperature	140	°C	ASTM D1525 [4]
Vicat Softening Temperature	140	°C	ISO 306/B120
CLTE - Flow (-40 to 82°C)	7.0E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity (23°C)	1.0E+15	ohms·cm	ASTM D257
Optical	**Nominal Value**	**Unit**	**Test Method**
Transmittance			
3000 µm	> 88.0	%	ASTM D1003
3000 µm	> 88.0	%	ISO 13468-1
Haze			
3000 µm	< 1.00	%	ASTM D1003
3000 µm	< 1.00	%	ISO 14782

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 50 mm/min

[3] 0.25 mm Notch Depth

[4] Rate A (50°C/h), Loading 2 (50 N)