

General Information
Product Description

LUPLOY PC 1201-22C resin is designed for extrusion and injection molding products. It exhibits an excellent physical property balance of heat resistance, transparency and impact strength.

Main Characteristics

- FDA
- Low viscosity
- Good mold release

Applications

- Toys
- Food utensils
- Packaging applications

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Features	• Food Contact Acceptable • Good Clarity	• Good Heat Resistance • Good Impact Resistance	• Good Mold Release • Low Viscosity
Uses	• Packaging	• Toys	
Agency Ratings	• EU Food Contact, Unspecified Rating	• FDA 21 CFR 177.1580	
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.20	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	22	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.050 to 0.70	%	ASTM D955
Water Absorption (24 hr, 23°C)	0.15	%	ASTM D570
Water Absorption (Equilibrium, 23°C, 50% RH)	0.32	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2340	MPa	ASTM D638
Tensile Strength ² (Yield, 23°C)	60.0	MPa	ASTM D638
Tensile Strength (Break)	66.0	MPa	ASTM D638
Tensile Elongation (Yield)	6.0	%	ASTM D638
Tensile Elongation (Break)	120	%	ASTM D638
Flexural Modulus	2410	MPa	ASTM D790
Flexural Strength	96.0	MPa	ASTM D790
Taber Abrasion Resistance - Delta Haze ³	45	%	ASTM D1004
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact ⁴ (23°C, 3.18 mm)	750	J/m	ASTM D256
Unnotched Izod Impact (23°C)	No Break		ASTM D256
Instrumented Dart Impact ⁵ (23°C, 3.18 mm, Total Energy)	72.0	J	ASTM D3763

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Lupoy® 1201-22C

LG Chem Ltd. - Polycarbonate

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
M-Scale	72		
R-Scale	118		
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Annealed, 4.00 mm	142	°C	
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 4.00 mm	126	°C	
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Annealed, 4.00 mm	139	°C	
Vicat Softening Temperature	147	°C	ASTM D1525 ⁶
Ball Indentation Temperature	> 125	°C	IEC 60598-1
CLTE - Flow (-40 to 82°C)	6.8E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (23°C)	2.0E+17	ohms-cm	ASTM D257
Dielectric Strength	17	kV/mm	ASTM D149
Dielectric Constant (60 Hz)	3.00		ASTM D150
Dissipation Factor (60 Hz)	1.0E-3		ASTM D150
Comparative Tracking Index (2.00 mm)	250	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.50 mm	V-2		
1.6 mm	V-2		
2.5 mm	V-2		
3.0 mm	V-2		
Glow Wire Ignition Temperature (2.0 mm, 5.0 sec)	850	°C	IEC 60695-2-13
Oxygen Index	26	%	ASTM D2863
Average Extent of Burning	3	cm	ASTM D635
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.586		ASTM D542
Transmittance	89.0	%	ASTM D1003
Haze	0.700 to 1.50	%	ASTM D1003

Notes

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

² 50 mm/min

³ CS-10F Wheel, 500 cycles, 1000 g

⁴ 0.25 mm Notch Depth

⁵ 3.39 m/sec

⁶ Rate A (50°C/h), Loading 2 (50 N)