

General Information
Product Description

LUPLOY PC 3010-10 resin is designed for injection molding products. It exhibits an excellent physical property balance of heat resistance, transparency and impact strength.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Features	• Chemical Resistant • Food Contact Acceptable • Good Clarity	• Good Flow • Good Heat Resistance • Good Impact Resistance	• High Toughness
Uses	• Appliances	• Electrical/Electronic Applications	• Thin-walled Parts
Agency Ratings	• EC 1907/2006 (REACH)	• EU Food Contact, Unspecified Rating	• FDA 21 CFR 177.1580
RoHS Compliance	• RoHS Compliant		
UL File Number	• E67171		
Appearance	• Clear/Transparent		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

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)	10	g/10 min	ASTM D1238
Spiral Flow ^{2, 3}	2.20	cm	
Molding Shrinkage - Flow	0.50 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	2400	MPa	ASTM D638
Tensile Strength ⁴ (Yield, 23°C)	62.0	MPa	ASTM D638
Tensile Strength (Break)	60.0	MPa	ASTM D638
Tensile Elongation (Yield)	6.0	%	ASTM D638
Tensile Elongation (Break)	100	%	ASTM D638
Flexural Modulus	2400	MPa	ASTM D790
Flexural Strength	96.0	MPa	ASTM D790
Taber Abrasion Resistance - Change in Haze ⁵	45	%	ASTM D1004
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact ⁶ (23°C, 3.20 mm)	930	J/m	ASTM D256
Unnotched Izod Impact (23°C)	No Break		ASTM D256
Instrumented Dart Impact ⁷ (23°C, 3.20 mm, Total Energy)	90.0	J	ASTM D3763
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
M-Scale	73		
R-Scale	118		

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Lupoy® 3010-10

LG Chem Ltd. - Polycarbonate

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Annealed, 4.00 mm	144	°C	ASTM D648
Deflection Temperature Under Load 1.8 MPa, Unannealed, 4.00 mm	128	°C	ASTM D648
Deflection Temperature Under Load 1.8 MPa, Annealed, 4.00 mm	141	°C	ASTM D648
Vicat Softening Temperature	149	°C	ASTM D1525 ⁸
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 3.0 mm	HB		UL 94
0.50 mm	V-2		
2.5 mm	V-2		
Glow Wire Ignition Temperature ⁹ (2.0 mm)	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 Melt Temperature: 330°C

³ 1.5x6 mm

⁴ 50 mm/min

⁵ 1000g, 500 cycles, CS-10F Wheel

⁶ 0.25 mm Notch Depth

⁷ 3.38 m/sec

⁸ Rate A (50°C/h), Loading 2 (50 N)

⁹ 5 sec