

HOPELEX PC-1100U

Technical DataSheet | Supplied by Lotte Chemical

HOPELEX PC-1100U by Lotte Chemical is a medium viscosity, UV stabilized, halogen- & phthalate free polycarbonate (PC) resin. Exhibits good mold release and high strength. It can be processed using extrusion and injection molding. Recommended for outdoor applications. Possible applications include automotive headlamp and rear lamp. HOPELEX PC-1100U complies with RoHS.

Product Type	PC (Polycarbonate) > PC
Physical Form	Solid
Product Status	COMMERCIAL
Applications/ Recommended for	Automotive > Lighting - Rear lamps Automotive > Lighting - Headlamps Injection molding - thermoplastics Extrusion
Labels/Agency Rating	RoHS
Key Features	Halogen Free Mold Release, Good Phthalate-Free Strength, High UV-Stabilized Viscosity, Medium

HOPELEX PC-1100U Properties

Physical	Value & Unit	Test Condition	Test Method
Melt Mass-Flow Rate (MFR or MFI = Melt Flow Index or MI = Melt Index)	10 g/10 min	At 300°C, 1.2 kg	ASTM D1238
Linear Mold Shrinkage	0.5 - 0.7 %		ASTM D955
Specific Gravity	1.20		ASTM D792

Mechanical	Value & Unit	Test Condition	Test Method
Tensile Strength, Yield	630 kgf/cm ²	At 50 mm/min	ASTM D638
Elongation at Break	> 100 %	At 50 mm/min	ASTM D638
Flexural Yield Strength	920 kgf/cm ²	At 10 mm/min	ASTM D790
Flexural Modulus	24000 kgf/cm ²	At 10 mm/min	ASTM D790
Impact Strength, Notched Izod	80 kg-cm/cm	At 23°C, 1.8"	ASTM D256

Thermal	Value & Unit	Test Condition	Test Method
Deflection Temperature at 0.46 MPa (66 psi)	143 °C		ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	132 °C		ASTM D648
Vicat Softening Temperature	150 °C	At B50	ASTM D1525
UL RTI, Electrical	130 °C	At 1.60 mm, 3.20 mm	UL 746
UL RTI, Mechanical with Impact	125 °C	At 1.60 mm	UL 746
UL RTI, Mechanical with Impact	130 °C	At 3.20 mm	UL 746
UL RTI, Mechanical without Impact	125 °C	At 1.60 mm	UL 746
UL RTI, Mechanical without Impact	130 °C	At 3.20 mm	UL 746

Optical	Value & Unit	Test Condition	Test Method
Transmission, Visible	89 %		ASTM D1003
Haze	< 0.8 %		ASTM D1003
Refractive Index	1.585		ASTM D542

Flammability	Value & Unit	Test Condition	Test Method
Flame Rating, UL 94	V-2	At 1.60 mm, 3.20 mm, NC	UL 94
Flash Point	450 °C		
Auto-ignition Temperature	> 550 °C		

HOPELEX PC-1100U Processing Guidelines

Injection Molding	Value & Unit	Test Condition	Test Method
Drying Temperature	120 °C		
Drying Time	4 hr		
Barrel Rear Temperature	290 - 310 °C		
Melt Temperature	290 - 310 °C		
Nozzle Temperature	280 - 300 °C		
Barrel Middle Temperature	280 - 300 °C		
Barrel Front Temperature	270 - 290 °C		

Hopper Temperature 60 - 80 °C

Mold Temperature 60 - 90 °C

Moisture Content 0.02 %

Help us improve the Universal Selector

You can't find what you are looking for? Please report missing products / suppliers, point out errors, or simply tell us how we could make the Universal Selector better.