

Iupilon® HL-3503

Polycarbonate

Mitsubishi Engineering-Plastics Corp

Technical Data

Product Description

Light guide Grade (For Automobile)

- High flow
- Heat Resistant
- High luminance

General

Features	• High Flow	• Medium Heat Resistance
Uses	• Automotive Applications	
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Nominal Value Unit	Test Method
Density	1.20 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	56 g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	53.0 cm ³ /10min	ISO 1133
Molding Shrinkage		
Across Flow : 3.20 mm	0.40 to 0.60 %	
Flow : 3.20 mm	0.40 to 0.60 %	
Water Absorption (Saturation, 23°C)	0.24 %	

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	2400 MPa	ISO 527-2
Tensile Stress (Yield)	63.0 MPa	ISO 527-2
Tensile Strain (Yield)	5.6 %	ISO 527-2
Nominal Tensile Strain at Break	87 %	ISO 527-2
Flexural Modulus	2300 MPa	ISO 178
Flexural Stress	99.0 MPa	ISO 178

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength (23°C)	49 kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	No Break	ISO 179

Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		
0.45 MPa, Unannealed	135 °C	ISO 75-2/B
1.8 MPa, Unannealed	122 °C	ISO 75-2/A
CLTE		ISO 11359-2
Flow	6.5E-5 cm/cm/°C	
Transverse	6.6E-5 cm/cm/°C	



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Electrical	Nominal Value Unit	Test Method
Surface Resistivity	6.0E+15 ohms	IEC 60093
Volume Resistivity	3.0E+16 ohms·cm	IEC 60093
Electric Strength		IEC 60243-1
1.00 mm	31 kV/mm	
3.00 mm	18 kV/mm	
Relative Permittivity		IEC 60250
100 Hz	3.10	
1 MHz	3.10	
Dissipation Factor		IEC 60250
100 Hz	6.0E-4	
1 MHz	9.0E-3	
Comparative Tracking Index (CTI)	PLC 2	UL 746

Injection	Nominal Value Unit
Drying Temperature	120 °C
Drying Time	4.0 to 8.0 hr
Rear Temperature	260 to 270 °C
Middle Temperature	260 to 280 °C
Front Temperature	270 to 290 °C
Nozzle Temperature	270 to 290 °C
Mold Temperature	80 to 120 °C
Injection Pressure	50.0 to 150 MPa
Screw Speed	50 to 150 rpm

