

Iupilon™ H-4000

Mitsubishi Engineering-Plastics Corp - Polycarbonate

General Information

Product Description

Optical Disk

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Uses	• Optical Data Storage		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	63	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	60	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow	0.40 to 0.60	%	
Flow	0.40 to 0.60	%	
Water Absorption (24 hr, 73°F)	0.24	%	Internal Method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	348000	psi	ISO 527-1/1
Tensile Stress (Yield)	9140	psi	ISO 527-2/50
Tensile Strain (Yield)	6.5	%	ISO 527-2/50
Tensile Strain (Break)	76	%	ISO 527-2/50
Flexural Modulus ²	334000	psi	ISO 178
Flexural Stress ²	13600	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	21	ft·lb/in ²	ISO 179
Charpy Unnotched Impact Strength (73°F)	No Break		ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	277	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	253	°F	ISO 75-2/A
CLTE - Flow	3.6E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	3.7E-5	in/in/°F	ISO 11359-2
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
0.0394 in	790	V/mil	
0.118 in	460	V/mil	
Dielectric Constant			IEC 60250
1 MHz	3.10		
100 MHz	3.10		
Dissipation Factor			IEC 60250
1 MHz	9.0E-3		
100 MHz	6.0E-4		
Comparative Tracking Index (CTI)	PLC 2		UL 746A

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Hot Air Dryer	248	°F
Drying Time - Hot Air Dryer	4.0 to 8.0	hr



Rear Temperature	608 to 734 °F
Middle Temperature	608 to 734 °F
Front Temperature	608 to 734 °F
Nozzle Temperature	608 to 734 °F
Mold Temperature	122 to 266 °F

Notes

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

² 0.079 in/min

