

Iupilon™ GPX2050DF

Mitsubishi Engineering-Plastics Corp - Polycarbonate

General Information

Product Description

Reinforced (50%); Flame retardant (Phosphoric acid), Low Warpage; High Flowability, High Modulus

General

Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight		
Additive	• Flame Retardant		
Features	• Flame Retardant • High Flow	• High Rigidity • High Stiffness	• Low Warpage
Uses	• General Purpose		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.63	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	7.9	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	5.3	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow	0.050 to 0.20	%	
Flow	0.050 to 0.20	%	
Water Absorption (Saturation, 23°C)	0.070	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	15000	MPa	ISO 527-1/1
Tensile Stress (Break)	122	MPa	ISO 527-2/5
Tensile Strain (Break)	1.5	%	ISO 527-2/5
Flexural Modulus ²	14200	MPa	ISO 178
Flexural Stress ²	208	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	7.0	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	36	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	115	°C	ISO 75-2/B
1.8 MPa, Unannealed	110	°C	ISO 75-2/A
CLTE			ISO 11359-2
Flow	2.0E-5	cm/cm/°C	
Transverse	2.6E-5	cm/cm/°C	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (2.0 mm)	V-1		UL 94



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Processing Information		
Injection	Nominal Value	Unit
Drying Temperature - Hot Air Dryer	120	°C
Drying Time - Hot Air Dryer	4.0 to 8.0	hr
Rear Temperature	280 to 300	°C
Middle Temperature	280 to 300	°C
Front Temperature	280 to 300	°C
Nozzle Temperature	280 to 300	°C
Mold Temperature	50 to 90	°C

