

Iupilon™ GPN2050DF

Mitsubishi Engineering-Plastics Corp - Polycarbonate

General Information			
Product Description			
Reinforced (50%); Flame retard.(Phosphoric acid); Low Warpage; High Flowability			
General			
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight		
Features	• Flame Retardant	• High Flow	• Low Warpage
Uses	• General Purpose		
ASTM & ISO Properties ¹			
Physical	Nominal Value	Unit	Test Method
Density	1.63	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	4.3	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	2.9	cm³/10min	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	13500	MPa	ISO 527-1/1
Tensile Stress (Break)	91.0	MPa	ISO 527-2/5
Tensile Strain (Break)	1.1	%	ISO 527-2/5
Flexural Modulus ²	12800	MPa	ISO 178
Flexural Stress ²	165	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	5.0	kJ/m²	ISO 179
Charpy Unnotched Impact Strength (23°C)	29	kJ/m²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	120	°C	ISO 75-2/B
1.8 MPa, Unannealed	115	°C	ISO 75-2/A
CLTE			ISO 11359-2
Flow	1.9E-5	cm/cm/°C	
Transverse	2.6E-5	cm/cm/°C	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.5 mm)	V-0		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	60 to 100	°C

