Mitsubishi Engineering-Plastics Corp.

Iupilon™ GPX2010PH

Mitsubishi Engineering-Plastics Corp - Polycarbonate

General Information		
Product Description		
For Mobile Phone Housing (GF10%); Flame Retardant, Phoshoric acid; High Impact Strength		
General		
Filler / Reinforcement	• Glass Fiber, 10% Filler by Weight	
Additive	• Flame Retardant	
Features	• Flame Retardant	• High Impact Resistance
Uses	• Cell Phones	• Electrical Housing

ASTM & ISO Properties [1]			
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.26	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	17	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	16	cm³/10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow	0.30 to 0.50	%	
Flow	0.30 to 0.50	%	
Water Absorption (Saturation, 23°C)	0.14	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	3000	MPa	ISO 527-1/1
Tensile Stress (Yield)	55.0	MPa	ISO 527-2/5
Tensile Strain			ISO 527-2/5
Yield	4.8	%	
Break	10	%	
Flexural Modulus [2]	2800	MPa	ISO 178
Flexural Stress [2]	93.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	8.0	kJ/m²	ISO 179
Charpy Unnotched Impact Strength (23°C)	No Break		ISO 179
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Unannealed	122	°C	ISO 75-2/B
1.8 MPa, Unannealed	113	°C	ISO 75-2/A
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.75 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	60 to 100	°C