



Mitsubishi Engineering-Plastics Corp.

Iupilon™ CGH1010R2

Mitsubishi Engineering-Plastics Corp - Polycarbonate

General Information

Product Description

Carbon/Glass Fiber Reinforced, CF10% + GF10%

General

Filler / Reinforcement	- Carbon Fiber, 10% Filler by Weight - Glass Fiber, 10% Filler by Weight
Features	- High Rigidity - High Stiffness
Uses	General Purpose

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.31	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	6.9	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	6.1	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow	0.20 to 0.40	%	
Flow	0.10 to 0.30	%	
Water Absorption (24 hr, 23°C)	0.11	%	Internal Method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	7200	MPa	ISO 527-1/1
Tensile Stress (Break)	91.0	MPa	ISO 527-2/5
Tensile Strain (Break)	2.0	%	ISO 527-2/5
Flexural Modulus ²	9000	MPa	ISO 178
Flexural Stress ²	180	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	10	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	50	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	148	°C	ISO 75-2/B
1.8 MPa, Unannealed	143	°C	ISO 75-2/A
CLTE			ISO 11359-2
Flow	2.4E-5	cm/cm/°C	
Transverse	5.9E-5	cm/cm/°C	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.40 mm)	HB		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	290 to 310	°C
Middle Temperature	290 to 310	°C
Front Temperature	290 to 310	°C
Nozzle Temperature	290 to 310	°C
Mold Temperature	80 to 120	°C

