

Clariant PC PC-1100G40

Polycarbonate
Clariant Corporation

Message:

Clariant PC PC-1100G40 is a polycarbonate (PC) material, which contains a 40% glass fiber reinforced material. This product is available in North America and is processed by injection molding.

The main features of Clariant PC PC-1100G40 are:

- flame retardant/rated flame
- high strength
- Good processability
- Hard
- Corrosion resistance

Typical application areas include:

- Electrical/electronic applications
- military applications
- Sporting goods

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 40% filler by weight		
Features	Good dimensional stability		
	Rigidity, high		
	Rigid, good		
	High strength		
	Workability, good		
	Good corrosion resistance		
	Good coloring		
	Good chemical resistance		
	Good toughness		
Uses	Low or no water absorption		
	Metal substitution		
	Military application		
	Sporting goods		
Appearance	Camera application		
	Available colors		
Forms	Natural color		
	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.52	g/cm ³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.10	%	ASTM D955
Water Absorption			ASTM D570

24 hr	0.070	%	ASTM D570
Saturation	0.16	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
Class m	96		ASTM D785
Class r	120		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	145	MPa	ASTM D638
Tensile Elongation (Break)	4.0	%	ASTM D638
Flexural Modulus	9650	MPa	ASTM D790
Flexural Strength	200	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	140	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	152	°C	ASTM D648
1.8 MPa, not annealed	149	°C	ASTM D648
CLTE - Flow	1.9E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	19	kV/mm	ASTM D149
Flammability	Nominal Value	Unit	Test Method
Flame Rating	V-1		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.020	%	
Rear Temperature	304 - 343	°C	
Middle Temperature	304 - 343	°C	
Front Temperature	304 - 343	°C	
Processing (Melt) Temp	304 - 327	°C	
Melt Temperature (Aim)	316	°C	
Mold Temperature	82.2 - 121	°C	
Injection Rate	Fast		
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	45 - 75	rpm	
Cushion	3.18 - 6.35	mm	
Injection instructions			

The minimum injection pressure required to fill the part should be used for the first stage. The hold pressure should be set between 50% and 75% of the injection pressure.

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