Clariant PC PC-1100H30

Polycarbonate

Clariant Corporation

Message:

Clariant PC PC-1100H30 is a polycarbonate (PC) material, which contains a 30% carbon fiber reinforced material. This product is available in North America and is processed by injection molding.
The main features of Clariant PC PC-1100H30 are:
flame retardant/rated flame
high strength
Good processability
Hard
Corrosion resistance
Typical application areas include:
military applications
business/office supplies
Sporting goods

General Information	
Filler / Reinforcement	Carbon fiber reinforced material, 30% 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 Low or no water absorption
Uses	Metal substitution Military application Business equipment Sporting goods
Appearance	Available colors Natural color
Forms	Particle
Processing Method	Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.33	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.15	%	ASTM D955
Water Absorption			ASTM D570

24 hr	0.080	%	ASTM D570
Saturation	0.18	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			ASTM D785
Class m	92		ASTM D785
Class r	110		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	169	MPa	ASTM D638
Tensile Elongation (Break)	4.0	%	ASTM D638
Flexural Modulus	13800	MPa	ASTM D790
Flexural Strength	248	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm)	110	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	1.8E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+3	ohms·cm	ASTM D257
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.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

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