

# HiFill® PC GF20 X

Polycarbonate

Techmer Engineered Solutions

## Message:

HiFill® PC GF20 X is a polycarbonate (PC) product that contains 20% glass fiber reinforced materials. It can be processed by injection molding and is available in North America.

Features include:

flame retardant/rated flame

high liquidity

mold release agent

excellent release agent

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight		
Additive	demoulding		
Features	High liquidity		
	Good demoulding performance		
Appearance	Available colors		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.34	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.35	%	ASTM D955
Water Absorption (24 hr)	0.10	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	122		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	110	MPa	ASTM D638
Tensile Elongation (Break)	5.0	%	ASTM D638
Flexural Modulus	5860	MPa	ASTM D790
Flexural Strength	165	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	180	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	2.3E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms · cm	ASTM D257
Dielectric Strength <sup>1</sup>	30	kV/mm	ASTM D149

Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.05 mm)	V-1		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.10	%	
Rear Temperature	302 - 316	°C	
Middle Temperature	316 - 332	°C	
Front Temperature	310 - 327	°C	
Nozzle Temperature	310 - 327	°C	
Processing (Melt) Temp	304 - 327	°C	
Mold Temperature	71.1 - 87.8	°C	
Injection Rate	Moderate		
Back Pressure	0.00 - 0.689	MPa	
Injection instructions			
Screw Speed: MediumRecommendations for Molding and Tool Conditions: Well vented moldMoisture Content, as received: Product is packaged at 0.2% or less.			
NOTE			

1. Method A (short time)

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#### Recommended distributors for this material

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