



2079 Center Square Road  
 Logan Township, NJ 08085  
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**TECHNICAL DATA AND PROCESS SHEET**

**20% CARBON FIBER REINFORCED PPA**

**INELEC PPACF20**

**TYPICAL PROPERTIES**

PROPERTY	ASTM		English	UNITS	Metric SI	UNITS
	METHOD					
<b>GENERAL</b>						
SPECIFIC GRAVITY	D792		1.28		1.28	
SPECIFIC VOLUME			21.6	in <sup>3</sup> /lb	0.781	cm <sup>3</sup> /gm
WATER ABSORPTION (24 Hrs)	D570		0.2	%	0.20	%
MOLD SHRINKAGE	D955		0.05-0.2	%	0.05-0.2	%
<b>MECHANICAL</b>						
TENSILE STRENGTH	D638		35,500	psi	245	MPa
ELONGATION, YIELD	D638		1-3	%	1-3	%
FLEXURAL STRENGTH	D790		50,000	psi	345	MPa
FLEXURAL MODULUS	D790		2,200,000	psi	15,168	MPa
SHEAR STRENGTH	D732					
IZOD IMPACT STRENGTH	D256					
NOTCHED 1/8"			1.4	ft.lb./in.	75	J/m
UNNOTCHED 1/8"			8	ft.lb./in.	426	J/m
ROCKWELL HARDNESS						
<b>THERMAL</b>						
HDTUL	D648		530	°F	277	°C
@ 264 PSI						
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696		1.2	in./in. F x10 <sup>-5</sup>	2.16	mm/mm C 10 <sup>-6</sup>
FLAMMABILITY <sup>1</sup>	U.L.Subj 94		HB@1/16	in	HB@1.5	mm
<b>ELECTRICAL</b>						
SURFACE RESISTIVITY			10e <sup>2</sup> -10e <sup>4</sup>	ohms/sq	10e <sup>2</sup> -10e <sup>4</sup>	ohms/sq
<b>PROCESSING</b>						
DRYING TEMPERATURE			180	°F	82	°C
DRYING TIME			4	hrs	4	hrs
MELT TEMPERATURE			625	°F	330	°C
MOLD TEMPERATURE			275	°F	135	°C
BACK PRESSURE			50-100	psi	0.3 - 0.7	MPa
SCREW SPEED			40-70	rpm	40-70	rpm
VENT DEPTH			0.0005-0.001	in	0.0125-0.0251	mm

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