

**TECHNICAL DATA AND PROCESS SHEET**

**20% CARBON FIBER REINFORCED PPA**

**INELEC PPACF20**

**TYPICAL PROPERTIES**

<b>PROPERTY</b>	<b>ASTM METHOD</b>	<b>English</b>	<b>UNITS</b>	<b>Metric SI</b>	<b>UNITS</b>
<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		psi		MPa
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			M Scale		M Scale
<b>THERMAL</b>					
HDTUL @ 264 PSI	D648	530	°F	277	°C
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		275	°F	135	°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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