

**TECHNICAL DATA AND PROCESS SHEET**

**20% CARBON FIBER REINFORCED NYLON 6/6**

**INELEC PA66CF20**

**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	1.23		1.23	
SPECIFIC VOLUME		22.52	in <sup>3</sup> /lb	0.813	cm <sup>3</sup> /gm
WATER ABSORPTION (24 Hrs)	D570	0.90	%	0.90	%
MOLD SHRINKAGE	D955	0.3-0.5	%	0.3-0.5	%
<b>MECHANICAL</b>					
TENSILE STRENGTH	D638	28,000	psi	193	MPa
ELONGATION, YIELD	D638	2-4	%	2-4	%
FLEXURAL STRENGTH	D790	43,000	psi	296	MPa
FLEXURAL MODULUS	D790	2,400,000	psi	16,547	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		1.2	ft.lb./in.	64	J/m
UNNOTCHED 1/8"		12	ft.lb./in.	640	J/m
ROCKWELL HARDNESS					
<b>THERMAL</b>					
HDTUL	D648	495	°F	257	°C
@ 264 PSI					
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	1.4	in./in. F x10 <sup>-5</sup>	2.52	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		175	°F	79	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		500-575	°F	260 - 301	°C
MOLD TEMPERATURE		200	°F	93	°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 - 0.025	mm

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