



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

**10% CARBON FIBER REINFORCED POLYCARBONATE**

**INELEC PCCF10**

**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	1.24		1.24	
SPECIFIC VOLUME		22.34	in <sup>3</sup> /lb	0.806	cm <sup>3</sup> /gm
WATER ABSORPTION (24 Hrs)	D570	0.1	%	0.10	%
MOLD SHRINKAGE	D955	0.2-0.3	%	0.2-0.3	%
<b>MECHANICAL</b>					
TENSILE STRENGTH	D638	16,000	psi	110	MPa
ELONGATION, YIELD	D638	3-4	%	3-4	%
FLEXURAL STRENGTH	D790	22,000	psi	152	MPa
FLEXURAL MODULUS	D790	870,000	psi	5,998	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		1.6	ft.lb./in.	85	J/m
UNNOTCHED 1/8"		11	ft.lb./in.	586	J/m
ROCKWELL HARDNESS					
<b>THERMAL</b>					
HDTUL @ 264 PSI	D648	280	°F	138	°C
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		10e2 -10e6	ohms/sq	10e2 -10e6	ohms/sq
<b>PROCESSING</b>					
DRYING TEMPERATURE		250	°F	121	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		540-630	°F	280- 330	°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		0.0015-0.003	in	0.038 - 0.075	mm

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