

**TECHNICAL DATA AND PROCESS SHEET**

**10% CARBON FIBER REINFORCED NYLON 610**

**INELEC PA610CF10**

**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	1.12		1.12	
SPECIFIC VOLUME		24.73	in <sup>3</sup> /lb	0.893	cm <sup>3</sup> /gm
WATER ABSORPTION (24 Hrs)	D570	0.25	%	0.25	%
MOLD SHRINKAGE	D955	0.35-0.45	%	0.35-0.45	%
<b>MECHANICAL</b>					
TENSILE STRENGTH	D638	19,500	psi	134	MPa
ELONGATION, YIELD	D638	3-5	%	3-5	%
FLEXURAL STRENGTH	D790	27,000	psi	186	MPa
FLEXURAL MODULUS	D790	970,000	psi	6,688	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		2	ft.lb./in.	80	J/m
UNNOTCHED 1/8"		12	ft.lb./in.	640	J/m
ROCKWELL HARDNESS		M85	M Scale	M85	M Scale
<b>THERMAL</b>					
HDTUL @ 264 PSI	D648	420	°F	216	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	2.3	in./in. F x10 <sup>-5</sup>	4.14	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		175	°F	79	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		460-525	°F	238 - 275	°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

This information is based on our experience to date and we believe it to be reliable. It is intended only as a guide for use at your discretion and risk. We cannot guarantee favorable results and assume no liability in connection with its use of the products described. Each user bears full responsibility for making it's own determination as to the suitability of the product described. None of this information is to be taken as a license to operate under, or recommendation to infringe any patents.