

**TECHNICAL DATA AND PROCESS SHEET**

**20% CARBON FIBER REINFORCED HIGH FLOW PEEK**

**INELEC PEEKCF20HF**

**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	1.36		1.36	
SPECIFIC VOLUME		20.37	in <sup>3</sup> /lb	0.735	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	33,000	psi	228	MPa
ELONGATION, YIELD	D638	1-3	%	1-3	%
FLEXURAL STRENGTH	D790	48,000	psi	331	MPa
FLEXURAL MODULUS	D790	2,400,000	psi	16,547	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		1.3	ft.lb./in.	69	J/m
UNNOTCHED 1/8"		11	ft.lb./in.	586	J/m
ROCKWELL HARDNESS		R124	R Scale	R124	R Scale
<b>THERMAL</b>					
HDTUL	D648	600	°F	316	°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	V0@1/16	in	V0@1/16	mm
<b>ELECTRICAL</b>					
SURFACE RESISTIVITY		10e2-10e4	ohms/sq	10e2-10e4	ohms/sq
<b>PROCESSING</b>					
DRYING TEMPERATURE		300	°F	149	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		660-740	°F	350- 390	°C
MOLD TEMPERATURE		300	°F	149	°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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