

**TECHNICAL DATA AND PROCESS SHEET**

**30% CARBON FIBER REINFORCED HIGH FLOW PEEK**

**INELEC PEEKCF30HF**

**TYPICAL PROPERTIES**

PROPERTY	ASTM	English	UNITS	Metric SI	UNITS
	METHOD				
<b>GENERAL</b>					
SPECIFIC GRAVITY	D792	1.41		1.41	
SPECIFIC VOLUME		19.65	in <sup>3</sup> /lb	0.709	cm <sup>3</sup> /gm
WATER ABSORPTION (24 Hrs)	D570	0.15	%	0.15	%
MOLD SHRINKAGE	D955	0.1-0.2	%	0.1-0.2	%
<b>MECHANICAL</b>					
TENSILE STRENGTH	D638	38,000	psi	262	MPa
ELONGATION, YIELD	D638	1-2	%	1-2	%
FLEXURAL STRENGTH	D790	55,000	psi	379	MPa
FLEXURAL MODULUS	D790	3,600,000	psi	24,821	MPa
SHEAR STRENGTH	D732	14,000	psi	97	MPa
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		1.5	ft.lb./in.	80	J/m
UNNOTCHED 1/8"		12	ft.lb./in.	640	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	0.8	in./in. F x10 <sup>-5</sup>	1.44	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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