

**TECHNICAL DATA AND PROCESS SHEET**

**30% CARBON FIBER REINFORCED POLYETHERSULFONE**

**INELEC PESCF30**

**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	1.48		1.48	
SPECIFIC VOLUME		18.7	in <sup>3</sup> /lb	0.676	cm <sup>3</sup> /gm
WATER ABSORPTION (24 Hrs)	D570	0.3	%	0.30	%
MOLD SHRINKAGE	D955	0.1-0.2	%	0.1-0.2	%
<b>MECHANICAL</b>					
TENSILE STRENGTH	D638	26,000	psi	179	MPa
ELONGATION, YIELD	D638	1-3	%	1-3	%
FLEXURAL STRENGTH	D790	37,000	psi	255	MPa
FLEXURAL MODULUS	D790	2,000,000	psi	13,790	MPa
SHEAR STRENGTH	D732	10,500	psi		
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					
<b>THERMAL</b>					
HDTUL @ 264 PSI	D648	415	°F	213	°C
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@ 1.5	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		300	°F	149	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		650-715	°F	343 - 380	°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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