

**TECHNICAL DATA AND PROCESS SHEET**

**20% CARBON FIBER REINFORCED COPOLYMER ACETAL**

**INELEC POMCCF20**

**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	1.46		1.46	
SPECIFIC VOLUME		19.0	in <sup>3</sup> /lb	0.685	cm <sup>3</sup> /gm
WATER ABSORPTION (24 Hrs)	D570	0.5	%	0.50	%
MOLD SHRINKAGE	D955	0.5-0.7	%	0.5-0.7	%
<b>MECHANICAL</b>					
TENSILE STRENGTH	D638	21,500	psi	148	MPa
ELONGATION, YIELD	D638	2-3	%	2-3	%
FLEXURAL STRENGTH	D790	34,000	psi	234	MPa
FLEXURAL MODULUS	D790	1,900,000	psi	13,100	MPa
SHEAR STRENGTH	D732	8,200	psi	57	MPa
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		1.0	ft.lb./in.	53	J/m
UNNOTCHED 1/8"		6	ft.lb./in.	320	J/m
ROCKWELL HARDNESS					
<b>THERMAL</b>					
HDTUL	D648	325	°F	163	°C
@ 264 PSI					
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	2.2	in./in. F x10 <sup>-5</sup>	3.96	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		10e2-10e4	ohms/sq	10e2-10e4	ohms/sq
<b>PROCESSING</b>					
DRYING TEMPERATURE		180	°F	82	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		375-410	°F	190 - 210	°C
MOLD TEMPERATURE		200	°F	93	°C
BACK PRESSURE		50-100	psi	0.3 - 0.7	MPa
SCREW SPEED		30-60	rpm	30-60	rpm
VENT DEPTH		0.0005-0.001	in	0.0125 - 0.0251	mm

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