

TECHNICAL DATA AND PROCESS SHEET

20% CARBON FIBER REINFORCED POLYETHERIMIDE

INELEC PEICF20

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.35		1.35	
SPECIFIC VOLUME		20.5	in ³ /lb	0.741	cm ³ /gm
WATER ABSORPTION (24 Hrs)	D570	0.2	%	0.20	%
MOLD SHRINKAGE	D955	0.15-0.25	%	0.15-0.25	%
MECHANICAL					
TENSILE STRENGTH	D638	28,300	psi	195	MPa
ELONGATION, YIELD	D638	1-3	%	1-3	%
FLEXURAL STRENGTH	D790	39,000	psi	269	MPa
FLEXURAL MODULUS	D790	1,900,000	psi	13,100	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		1.1	ft.lb./in.	59	J/m
UNNOTCHED 1/8"		10	ft.lb./in.	533	J/m
ROCKWELL HARDNESS					
THERMAL					
HDTUL @ 264 PSI	D648	415	°F	213	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	1.1	in./in. F x10 ⁻⁵	1.98	mm/mm C 10 ⁻⁶
FLAMMABILITY ¹	U.L.Subj 94	V0@1/16	in	V0@ 1.5	mm
ELECTRICAL					
SURFACE RESISTIVITY		10e2-10e4	ohms/sq	10e2-10e4	ohms/sq
PROCESSING					
DRYING TEMPERATURE		300	°F	149	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		680-715	°F	360 - 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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