

TECHNICAL DATA AND PROCESS SHEET

30% CARBON FIBER REINFORCED POLYETHERIMIDE

INELEC PEICF30

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.39		1.39	
SPECIFIC VOLUME		19.9	in ³ /lb	0.719	cm ³ /gm
WATER ABSORPTION (24 Hrs)	D570	0.14	%	0.14	%
MOLD SHRINKAGE	D955	0.1-0.2	%	0.1-0.2	%
MECHANICAL					
TENSILE STRENGTH	D638	34,000	psi	234	MPa
ELONGATION, YIELD	D638	1-3	%	1-3	%
FLEXURAL STRENGTH	D790	44,000	psi	303	MPa
FLEXURAL MODULUS	D790	2,500,000	psi	17,237	MPa
SHEAR STRENGTH	D732	14000	psi	97	MPa
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		1.4	ft.lb./in.	75	J/m
UNNOTCHED 1/8"		12	ft.lb./in.	640	J/m
ROCKWELL HARDNESS					
THERMAL					
HDTUL @ 264 PSI	D648	420	°F	216	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	0.7	in./in. F x10 ⁻⁵	1.26	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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