

TECHNICAL DATA AND PROCESS SHEET

10% CARBON FIBER REINFORCED HIGH FLOW PEEK

INELEC PEEKCF10HF

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.33		1.33	
SPECIFIC VOLUME		20.83	in ³ /lb	0.752	cm ³ /gm
WATER ABSORPTION (24 Hrs)	D570	0.1	%	0.10	%
MOLD SHRINKAGE	D955	0.3-0.4	%	0.3-0.4	%
MECHANICAL					
TENSILE STRENGTH	D638	27,000	psi	186	MPa
ELONGATION, YIELD	D638	2-4	%	2-4	%
FLEXURAL STRENGTH	D790	31,500	psi	217	MPa
FLEXURAL MODULUS	D790	1,130,000	psi	7,791	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		R124	R Scale	R124	R Scale
THERMAL					
HDTUL	D648	590	°F	310	°C
@ 264 PSI					
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	2.1	in./in. F x10 ⁻⁵	3.78	mm/mm C 10 ⁻⁶
FLAMMABILITY ¹	U.L.Subj 94	V0@1/16	in	V0@1/16	mm
ELECTRICAL					
SURFACE RESISTIVITY		10e2 -10e6	ohms/sq	10e2 -10e6	ohms/sq
PROCESSING					
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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