

TECHNICAL DATA AND PROCESS SHEET

30% CARBON FIBER REINFORCED POLYCARBONATE

INELEC PCCF30

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	0.08	%	0.08	%
MOLD SHRINKAGE	D955	0.05-0.1	%	0.05-0.1	%
MECHANICAL					
TENSILE STRENGTH	D638	24,000	psi	165	MPa
ELONGATION, YIELD	D638	1-2	%	1-2	%
FLEXURAL STRENGTH	D790	35,000	psi	241	MPa
FLEXURAL MODULUS	D790	1,900,000	psi	13,100	MPa
SHEAR STRENGTH	D732	10,000	psi	69	MPa
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		1.8	ft.lb./in.	96	J/m
UNNOTCHED 1/8"		10	ft.lb./in.	533	J/m
ROCKWELL HARDNESS					
THERMAL					
HDTUL	D648	300	°F	149	°C
@ 264 PSI					
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	0.9	in./in. F x10 ⁻⁵	1.62	mm/mm C 10 ⁻⁶
FLAMMABILITY ¹	U.L.Subj 94	HB@1/16	in	HB@ 1.5	mm
ELECTRICAL					
SURFACE RESISTIVITY		10e2-10e4	ohms/sq	10e2-10e4	ohms/sq
PROCESSING					
DRYING TEMPERATURE		250	°F	121	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		540-630	°F	280- 330	°C
MOLD TEMPERATURE		200	°F	93	°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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