

TECHNICAL DATA AND PROCESS SHEET

30% CARBON FIBER REINFORCED IMPACT MODIFIED NYLON 6/6

INELEC PA66CF30IM

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.21		1.21	
SPECIFIC VOLUME		22.89	in ³ /lb	0.826	cm ³ /gm
WATER ABSORPTION (24 Hrs)	D570	0.7	%	0.70	%
MOLD SHRINKAGE	D955	0.1-0.2	%	0.1-0.2	%
MECHANICAL					
TENSILE STRENGTH	D638	25,000	psi	172	MPa
ELONGATION, YIELD	D638	2-3	%	2-3	%
FLEXURAL STRENGTH	D790	40,000	psi	276	MPa
FLEXURAL MODULUS	D790	2,100,000	psi	14,479	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		3	ft.lb./in.	160	J/m
UNNOTCHED 1/8"		19	ft.lb./in.	1013	J/m
ROCKWELL HARDNESS					
THERMAL					
HDTUL @ 264 PSI	D648	470	°F	243	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	1.2	in./in. F x 10 ⁻⁵	2.16	mm/mm C 10 ⁻⁶
FLAMMABILITY ¹	U.L.Subj 94	HB@ 1/16	in	HB@ 1.5	mm
ELECTRICAL					
SURFACE RESISTIVITY		10e ² - 10e ⁴	ohms/sq	10e ² - 10e ⁴	ohms/sq
PROCESSING					
DRYING TEMPERATURE		175	°F	79	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		500-575	°F	260 - 301	°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		0.0005-0.001	in	0.0125 - 0.025	mm

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