

TECHNICAL DATA AND PROCESS SHEET

10% CARBON FIBER REINFORCED IMPACT MODIFIED NYLON 6/6

INELEC PA66CF10IM

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.14		1.14	
SPECIFIC VOLUME		24.30	in ³ /lb	0.877	cm ³ /gm
WATER ABSORPTION (24 Hrs)	D570	1	%	1.00	%
MOLD SHRINKAGE	D955	0.7-0.9	%	0.7-0.9	%
MECHANICAL					
TENSILE STRENGTH	D638	18,000	psi	124	MPa
ELONGATION, YIELD	D638	1-3	%	1-3	%
FLEXURAL STRENGTH	D790	26,000	psi	179	MPa
FLEXURAL MODULUS	D790	1,300,000	psi	8,963	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		3	ft.lb./in.	160	J/m
UNNOTCHED 1/8"		12	ft.lb./in.	640	J/m
ROCKWELL HARDNESS					
THERMAL					
HDTUL @ 264 PSI	D648	470	°F	243	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	4	in./in. F x10 ⁻⁵	7.2	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 ⁶	ohms/sq	10e ² -10e ⁶	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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