

TECHNICAL DATA AND PROCESS SHEET

10% CARBON FIBER REINFORCED NYLON 6/6

INELEC PA66CF10

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.18		1.18	
SPECIFIC VOLUME		23.47	in ³ /lb	0.847	cm ³ /gm
WATER ABSORPTION (24 Hrs)	D570	0.80	%	0.80	%
MOLD SHRINKAGE	D955	0.5-0.6	%	0.5-0.6	%
MECHANICAL					
TENSILE STRENGTH	D638	20,000	psi	138	MPa
ELONGATION, YIELD	D638	2-4	%	2-4	%
FLEXURAL STRENGTH	D790	30,000	psi	207	MPa
FLEXURAL MODULUS	D790	1,000,000	psi	6,895	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		1	ft.lb./in.	53	J/m
UNNOTCHED 1/8"		8	ft.lb./in.	426	J/m
ROCKWELL HARDNESS					
THERMAL					
HDTUL @ 264 PSI	D648	485	°F	252	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	2	in./in. F x10 ⁻⁵	3.6	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

This information is based on our experience to date and we believe it to be reliable. It is intended only as a guide for use at your discretion and risk. We cannot guarantee favorable results and assume no liability in connection with its use of the products described. Each user bears full responsibility for making its own determination as to the suitability of the product described. None of this information is to be taken as a license to operate under, or recommendation to infringe any patents.