



2079 Center Square Road
 Logan Township, NJ 08085
 Phone: 856-467-3030

TECHNICAL DATA AND PROCESS SHEET

30% CARBON FIBER REINFORCED NYLON 6

INELEC PA6CF30

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.28		1.28	
SPECIFIC VOLUME		21.64	in ³ /lb	0.781	cm ³ /gm
WATER ABSORPTION (24 Hrs)	D570	0.8	%	0.80	%
MOLD SHRINKAGE	D955	0.2-0.4	%	0.2-0.4	%
MECHANICAL					
TENSILE STRENGTH	D638	32,000	psi	221	MPa
ELONGATION, YIELD	D638	1-3	%	1-3	%
FLEXURAL STRENGTH	D790	46,000	psi	317	MPa
FLEXURAL MODULUS	D790	2,400,000	psi	16,547	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		1.8	ft.lb./in.	96	J/m
UNNOTCHED 1/8"		13	ft.lb./in.	693	J/m
ROCKWELL HARDNESS					
THERMAL					
HDTUL @ 264 PSI	D648	425	°F	218	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	1.2	in./in. F x10 ⁻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		480-550	°F	250 - 290	°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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