

TECHNICAL DATA AND PROCESS SHEET

20% CARBON FIBER REINFORCED IMPACT MODIFIED NYLON 6/6

INELEC PA66CF20IM

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.17		1.17	
SPECIFIC VOLUME		23.68	in ³ /lb	0.855	cm ³ /gm
WATER ABSORPTION (24 Hrs)	D570	0.8	%	0.80	%
MOLD SHRINKAGE	D955	0.1-0.3	%	0.1-0.3	%
MECHANICAL					
TENSILE STRENGTH	D638	22,000	psi	152	MPa
ELONGATION, YIELD	D638	3-5	%	3-5	%
FLEXURAL STRENGTH	D790	34,000	psi	234	MPa
FLEXURAL MODULUS	D790	1,500,000	psi	10,342	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		2.5	ft.lb./in.	133	J/m
UNNOTCHED 1/8"		10	ft.lb./in.	533	J/m
ROCKWELL HARDNESS					
THERMAL					
HDTUL @ 264 PSI	D648	450	°F	232	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	2.7	in./in. F x10 ⁻⁵	4.86	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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