Engineered Compounds
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TECHNICAL DATA AND PROCESS SHEET

10% GLASS FIBER REINFORCED IMPACT MODIFIED NYLON 6/6

INSTRUC PA66GF10IM

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.16		1.16	
SPECIFIC VOLUME		23.88	in^3/lb	0.862	cm^3/gm
WATER ABSORPTION (24 Hrs	D570	1.1	%	1.10	%
MOLD SHRINKAGE	D955	0.6-1.0	%	0.6-1.0	%
MECHANICAL					
TENSILE STRENGTH	D638	10,500	psi	72	MPa
ELONGATION, YIELD	D638	8-9	%	8-9	%
FLEXURAL STRENGTH	D790	15,000	psi	103	MPa
FLEXURAL MODULUS	D790	400,000	psi	2,758	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		3.4	ft.lb./in.	181	J/m
UNNOTCHED 1/8"		14	ft.lb./in.	746	J/m
ROCKWELL HARDNESS					M Scale
THERMAL					
HDTUL @ 264 PSI	D648	460	°F	238	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	3.6	in./in. F $x10^{-5}$	6.48	mm/mm C 10^{-6}
FLAMMABILITY[1]	U.L.Subj 94	HB@1/16	in	HB@ 1.5	mm
ELECTRICAL					
SURFACE RESISTIVITY		$10e^{16}$	ohms/sq	$10e^{16}$	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