Engineered Compounds
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TECHNICAL DATA AND PROCESS SHEET

20% GLASS FIBER REINFORCED POLYETHERIMIDE

INSTRUC PEIGF20

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.41		1.41	
SPECIFIC VOLUME		19.6	in^3/lb	0.709	cm^3/gm
WATER ABSORPTION (24 Hrs	D570	0.21	%	0.21	%
MOLD SHRINKAGE	D955	0.2-0.3	%	0.2-0.3	%
MECHANICAL					
TENSILE STRENGTH	D638	23,000	psi	159	MPa
ELONGATION, YIELD	D638	2-4	%	2-4	%
FLEXURAL STRENGTH	D790	32,500	psi	224	MPa
FLEXURAL MODULUS	D790	1,000,000	psi	6,895	MPa
SHEAR STRENGTH	D732	13,500	psi	93	MPa
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		1.3	ft.lb./in.	69	J/m
UNNOTCHED 1/8"		10	ft.lb./in.	533	J/m
ROCKWELL HARDNESS					
THERMAL					
HDTUL @ 264 PSI	D648	405	°F	207	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	1.4	in./in. F $x10^{-5}$	2.52	mm/mm C 10^{-6}
FLAMMABILITY[1]	U.L.Subj 94	V0@1/16	in	V0@ 1.5	mm
ELECTRICAL					
SURFACE RESISTIVITY		$10e^{16}$	ohms/sq	$10e^{16}$	ohms/sq
PROCESSING					
DRYING TEMPERATURE		300	°F	149	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		680-715	°F	360 - 380	°C
MOLD TEMPERATURE		300	°F	149	°C
BACK PRESSURE		50-100	psi	0.3 - 0.7	MPa
SCREW SPEED		40-70	rpm	40-70	rpm
VENT DEPTH		0.0015-0.003	in	0.038 - 0.075	mm