

TECHNICAL DATA AND PROCESS SHEET

20% CARBON FIBER REINFORCED POLYCARBONATE

INELEC PCCF20

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	0.09	%	0.09	%
MOLD SHRINKAGE	D955	0.05-0.2	%	0.05-0.2	%
MECHANICAL					
TENSILE STRENGTH	D638	20,000	psi	138	MPa
ELONGATION, YIELD	D638	2-3	%	2-3	%
FLEXURAL STRENGTH	D790	30,000	psi	207	MPa
FLEXURAL MODULUS	D790	1,600,000	psi	11,032	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		2	ft.lb./in.	107	J/m
UNNOTCHED 1/8"		12	ft.lb./in.	640	J/m
ROCKWELL HARDNESS					
THERMAL					
HDTUL @ 264 PSI	D648	290	°F	143	°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		10e2-10e4	ohms/sq	10e2-10e4	ohms/sq
PROCESSING					
DRYING TEMPERATURE		250	°F	121	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		540-630	°F	280- 330	°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		0.0015-0.003	in	0.038 - 0.075	mm

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