

TECHNICAL DATA AND PROCESS SHEET

10% GLASS FIBER REINFORCED POLYCARBONATE

INSTRUC PCGF10

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.20		1.2	
SPECIFIC VOLUME		23.08	in ³ /lb	0.833	cm ³ /gm
WATER ABSORPTION (24 Hrs)	D570	0.12	%	0.12	%
MOLD SHRINKAGE	D955	0.2-0.4	%	0.2-0.4	%
MECHANICAL					
TENSILE STRENGTH	D638	10,000	psi	69	MPa
ELONGATION, YIELD	D638	4-6	%	4-6	%
FLEXURAL STRENGTH	D790	15,000	psi	103	MPa
FLEXURAL MODULUS	D790	500,000	psi	3,447	MPa
SHEAR STRENGTH	D732		psi	0	MPa
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		2.5	ft.lb./in.	133	J/m
UNNOTCHED 1/8"		27	ft.lb./in.	1439	J/m
ROCKWELL HARDNESS					
THERMAL					
HDTUL	D648	290	°F	143	°C
@ 264 PSI					
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	1.8	in./in. F x10 ⁻⁵	3.24	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		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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