

TECHNICAL DATA AND PROCESS SHEET

30% GLASS FIBER REINFORCED NYLON 6

INSTRUC PA6GF30

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.37		1.37	
SPECIFIC VOLUME		20.22	in ³ /lb	0.730	cm ³ /gm
WATER ABSORPTION (24 Hrs)	D570	1.1	%	1.10	%
MOLD SHRINKAGE	D955	0.3-0.4	%	0.3-0.4	%
MECHANICAL					
TENSILE STRENGTH	D638	36,000	psi	248	MPa
ELONGATION, YIELD	D638	2-4	%	2-4	%
FLEXURAL STRENGTH	D790	36,000	psi	248	MPa
FLEXURAL MODULUS	D790	1,200,000	psi	8,274	MPa
SHEAR STRENGTH	D732	12,000	psi	83	MPa
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		2.3	ft.lb./in.	123	J/m
UNNOTCHED 1/8"		22	ft.lb./in.	1173	J/m
ROCKWELL HARDNESS					
THERMAL					
HDTUL	D648	410	°F	210	°C
@ 264 PSI					
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	1.7	in./in. F x 10 ⁻⁵	3.06	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		480-550	°F	250-290	°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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