

TECHNICAL DATA AND PROCESS SHEET

30% GLASS FIBER REINFORCED NYLON 610

INSTRUC PA610GF30

TYPICAL PROPERTIES

PROPERTY	ASTM METHOD	English	UNITS	Metric SI	UNITS
GENERAL					
SPECIFIC GRAVITY	D792	1.3		1.3	
SPECIFIC VOLUME		21.31	in ³ /lb	0.769	cm ³ /gm
WATER ABSORPTION (24 Hrs)	D570	0.20	%	0.20	%
MOLD SHRINKAGE	D955	0.35-0.45	%	0.35-0.45	%
MECHANICAL					
TENSILE STRENGTH	D638	22,000	psi	152	MPa
ELONGATION, YIELD	D638	2-5	%	2-5	%
FLEXURAL STRENGTH	D790	32,000	psi	221	MPa
FLEXURAL MODULUS	D790	1,100,000	psi	7,584	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		2	ft.lb./in.	128	J/m
UNNOTCHED 1/8"		20	ft.lb./in.	1066	J/m
ROCKWELL HARDNESS		M93	M Scale	M93	M Scale
THERMAL					
HDTUL @ 264 PSI	D648	420	°F	216	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	1.5	in./in. F x10 ⁻⁵	2.7	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		460-525	°F	238 - 275	°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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