

**TECHNICAL DATA AND PROCESS SHEET**

**30% GLASS FIBER REINFORCED PBT**

**INSTRUC PBTGF30**

**TYPICAL PROPERTIES**

<b>PROPERTY</b>	<b>ASTM METHOD</b>	<b>English</b>	<b>UNITS</b>	<b>Metric SI</b>	<b>UNITS</b>
<b>GENERAL</b>					
SPECIFIC GRAVITY	D792	1.53		1.53	
SPECIFIC VOLUME		18.10	in <sup>3</sup> /lb	0.654	cm <sup>3</sup> /gm
WATER ABSORPTION (24 Hrs)	D570	0.06	%	0.06	%
MOLD SHRINKAGE	D955	0.2-0.4	%	0.2-0.4	%
<b>MECHANICAL</b>					
TENSILE STRENGTH	D638	18,200	psi	125	MPa
ELONGATION, YIELD	D638	2-4	%	2-4	%
FLEXURAL STRENGTH	D790	27,700	psi	191	MPa
FLEXURAL MODULUS	D790	1,250,000	psi	8,618	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		1.9	ft.lb./in.	101	J/m
UNNOTCHED 1/8"		18	ft.lb./in.	959	J/m
ROCKWELL HARDNESS		M84	M Scale	M84	M Scale
<b>THERMAL</b>					
HDTUL @ 264 PSI	D648	415	°F	213	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	1.2	in./in. F x10 <sup>-5</sup>	2.16	mm/mm C 10 <sup>-6</sup>
FLAMMABILITY <sup>1</sup>	U.L.Subj 94	HB@1/16	in	HB@ 1.5	mm
<b>ELECTRICAL</b>					
SURFACE RESISTIVITY		10e <sup>16</sup>	ohms/sq	10e <sup>16</sup>	ohms/sq
<b>PROCESSING</b>					
DRYING TEMPERATURE		230	°F	110	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		430-500	°F	220- 260	°C
MOLD TEMPERATURE		225	°F	107	°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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