

**TECHNICAL DATA AND PROCESS SHEET**

**IMPACT MODIFIED NYLON 6/6**

**INSTRUC PA66IM**

**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	1.08		1.08	
SPECIFIC VOLUME		25.65	in <sup>3</sup> /lb	0.926	cm <sup>3</sup> /gm
WATER ABSORPTION (24 Hrs)	D570	1.2	%	1.20	%
MOLD SHRINKAGE	D955	1.5-1.8	%	1.5-1.8	%
<b>MECHANICAL</b>					
TENSILE STRENGTH	D638	7,000	psi	48	MPa
ELONGATION, YIELD	D638	>50	%	>50	%
FLEXURAL STRENGTH	D790	10,900	psi	75	MPa
FLEXURAL MODULUS	D790	280,000	psi	1,931	MPa
SHEAR STRENGTH	D732				
IZOD IMPACT STRENGTH	D256				
NOTCHED 1/8"		18	ft.lb./in.	959	J/m
UNNOTCHED 1/8"		NB	ft.lb./in.	NB	J/m
ROCKWELL HARDNESS					
<b>THERMAL</b>					
HDTUL @ 264 PSI	D648	165	°F	74	°C
COEFFICIENT OF LINEAR THERMAL EXPANSION	D696	4.5	in./in. F x 10 <sup>-5</sup>	8.1	mm/mm C 10 <sup>-6</sup>
FLAMMABILITY <sup>1</sup>	U.L.Subj 94				
<b>ELECTRICAL</b>					
SURFACE RESISTIVITY		10e <sup>16</sup>	ohms/sq	10e <sup>16</sup>	ohms/sq
<b>PROCESSING</b>					
DRYING TEMPERATURE		175	°F	79	°C
DRYING TIME		4	hrs	4	hrs
MELT TEMPERATURE		500-575	°F	260 - 301	°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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