

## Technical Data Sheet PPA TI-50G (Conditioned)

PPA TI-50G is a 50% glass fiber reinforced heat stabilized polyphthalamide (PPA) resin. It has very high stiffness, tensile strength, and heat deflections temperature combined with low water absorption and creep.

<b>Mechanical</b>	ASTM	English	Metric
Tensile Strength at Yield	D 638	30,000 psi.	206 Mpa
Tensile Elongation	D 638	2.0%	2.0%
Flexural Modulus	D 790	2,400,000 psi.	16,500 Mpa
Flexural Strength	D 790	43,500 psi.	300 Mpa
Izod Impact Strength, Notched	D 256	1.5 ft-lb/in	80 J/m
Izod Impact Strength, Unnotched	D 256	19 ft-lb/in	1000 J/m
Hardness Rockwell R	D 785	125	125
<b>Thermal</b>			
Melting Temp	D3418	575 °F	300 °C
Deflection Temperature@ 66psi	D 648	545 °F	285 °C
Deflection Temperature @ 264psi	D 648	530 °F	276 °C
Coefficient of Thermal Expansion	D 696	$0.8 \times 10^{-5} / ^\circ\text{F}$	$0.45 \times 10^{-5} / ^\circ\text{C}$
Recommended Continuous use temp.		330 °F	165 °C
<b>Misc.</b>			
Specific Gravity	D 792	1.64	1.64
Water Absorption (24hr.)	D 570	0.25%	0.25%
Mold Shrinkage, flow, 125-180 mil	D 955	0.1 %	0.1 %
Mold Shrinkage, xflow, 125-180 mil	D 955	0.5 %	0.5 %

The data listed above are typical properties, and as such are dependent on processing conditions. No warranties, expressed or implied, including patent warranties, or warranties of merchantability or fitness for use, are made with respect to the product information.

