



**Engineering  
Plastics**

**QUANDA**

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# Typical Properties Data Sheet

The Supplier of Engineering Plastics  
Rods, Sheets, Tubes, Profiles and Machining Parts

## Quanda PBT Properties Data Sheet

### ① Raw material description

<b>Standard Grade:</b>	Extrusion grade	<b>Appearance color:</b>	---
<b>Application:</b>	Processing materials,rod, sheet, board.Used in electronics,electromagnetic switch,shell,automobile,bumper bar,fender,Rims ,industrial components: keyboard,components,lampshade.		
<b>Remarks:</b>	Charactors: The tensile strength and tensile modulus are similar with Nylon,low coefficient of friction and sulf-lubricating,low water absorption, superior electrical property,dimensional stability, excellent chemical resistance&oil resistance.		

### ② Raw material technical data sheet

Property item	Test conditions	Testing method	Testing data	Unit
<b>I.Physical property</b>				
Density	---	ASTM D792	1.31	g/cm <sup>3</sup>
Shrinkage	---	ASTM D955	1.2~2.2	%
Water absorption	---	ASTM D570	<0.09	%
Flammability class	---	UL94	V-1	Class
<b>II .Mechanical property</b>				
Tensile strength	---	ASTM D638	55	MPa
Elongation at break		ASTM D638	200~300	%
Flexural strength		ASTM D790	85	MPa
Compressive strength		ASTM D790	11.9	MPa
Hardness-Rockwell	---	ASTM D785	72	M (Scale)
Impact strength	---	ASTM D256	30	KJ/m <sup>2</sup>
Impact strength (Chipped)	---	ASTM D256	4.31	KJ/m <sup>2</sup>
Coefficient of friction	---	ASTM D1894	0.326	---
<b>III.Thermal property</b>				
Thermal deformation temperature	1.82MPa	ASTM D648	58	°C
Max. working temperature(long time)	---	UL746B	120	°C
Coefficient of linear thermal expansion	---	ASTM D696	8.8~9.6	10 <sup>-5</sup> K <sup>-1</sup>
<b>IV.Electrical property</b>				
Dielectric constant	1 MHz	ASTM D150	3.1	---
Dielectric loss angle tangent	1 MHz	ASTM D150	2.4×10 <sup>-2</sup>	---
Dielectric strength	1.5mm	ASTM D149	17	kV/mm
Volume resistivity	---	ASTM D257	10 <sup>16</sup>	Ω * cm
Surface resistivity	---	ASTM D257	10 <sup>16</sup>	Ω

Electric arc resistance	---	ASTM D495	125~190	sec
NOTE: $1 \text{ g/cm}^3 = 1,000 \text{ kg/m}^3$ , $1 \text{ Mpa} = 1 \text{ N/mm}^2$ , $1 \text{ kV/mm} = 1 \text{ MV/m}$				
<b>Statement:</b> NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Quanda will not provide any legally binding guarantee of certain properties, or any suitability.				