



**Engineering
Plastics**

QUANDA

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Typical Properties Data Sheet

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

Quanda PPO Properties Data Sheet

① Raw material description

Standard Grade:	Extrusion grade	Appearance color:	---
Applications:	Processing material, rod, sheet, board. Used in electronics, electromagnetic switch, shell, automobile bumper bar, fender, rim cover industry components, keyboard, components, lampshade.		
Remarks:	Character: Tensile strength and tensile modulus are similar with Nylon, low coefficient of friction and self-lubricating, low water absorption, superior electrical property, superior dimension stability, excellent chemical reagents and oil resistance.		

② Raw material technical datasheet

Property item	Test conditions	Testing method	Testing data	Unit
I. Physical property				
Density	---	ASTM D792	1.31	g/cm ³
Shrinkage	---	ASTM D955	1.2~2.2	%
Absorption	---	ASTM D570	<0.09	%
Flammability class	---	UL94	V-1	Class
II. Mechanical property				
Tensile strength	---	ASTM D638	55	MPa
Elongation at break	---	ASTM D638	200~300	%
Flexural strength	---	ASTM D790	85	MPa
Compression strength	---	ASTM D790	11.9	MPa
Hardness-Rockwell	---	ASTM D785	72	M (Scale)
Impact strength	---	ASTM D256	30	KJ/m ²
Impact strength(notched)	---	ASTM D256	4.31	KJ/m ²
Coefficient of friction	---	ASTM D1894	0.326	---
III. Thermal property				
Thermal deformation temperature	1.82MPa	ASTM D648	58	°C
Max. working temperature(short time)	---	UL746B	---	°C
Max. working temperature(long time)	---	UL746B	120	°C
Brittle temperature	---	ASTM D746	---	---
Thermal conductivity	---	ASTM C177	---	---
Coefficient of linear thermal expansion	---	ASTM D696	8.8~9.6	10 ⁻⁵ K ⁻¹
IV. Electrical property				
Dielectric constant	1 MHz	IEC 60250	3.1	---
Dielectric loss angle tangent	1 MHz	IEC 60250	2.4×10 ⁻²	---
Dielectric strength	1.5mm	IEC 60243	17	kV/mm

Volume resistivity	---	IEC 60093	10^{16}	$\Omega \cdot \text{cm}$
Surface resistivity	---	IEC 60093	10^{16}	Ω
Electric arc resistance	---	IEC 112	125~190	sec

NOTE: $1 \text{ g/cm}^3 = 1,000 \text{ kg/m}^3$, $1 \text{ Mpa} = 1 \text{ N/mm}^2$, $1 \text{ kV/mm} = 1 \text{ MV/m}$

Statement:
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.