



**Engineering
Plastics**

QUANDA

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Typical Properties Data Sheet

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

Benlonate® PC Properties Data Sheet

① Raw material description

Standard Grade:	Extrusion grade	Appearance color:	---
Application:	High stressed components, process materials, sheet, board, tube, rod; Mainly used in optical materials, illumination materials, medical equipments, semiconductor mechanical parts, short resistance parts.		
Remarks:	Charactors: With excellent impact resistance property, superior optics definition, solid and stiffness, easy for processing.		

② Raw material technical data sheet

Property item	Test conditions	Testing method	Testing data	Unit
I. Physical property				
Density	23°C	ISO 1183	1.2	g/cm ³
Shrinkage	---	ISO 2577	0.5	%
Water absorption	24h dipping (23°C)	ISO 62	0.15	%
Flammability class	---	UL94	V-2	Class
II. Mechanical property				
Tensile strength	23°C	ISO 527-1.2	56~66	MPa
Tensile modulus	---	ISO 527-1.2	2300	MPa
Yield stress	---	ISO 527-1.2	62	MPa
Yield strain	---	ISO 527-1.2	6	%
Elongation at break	---	ISO 527-2	100	%
Flexural strength	---	ISO 178	101	MPa
Flexural modulus	---	ISO 178	2300	MPa
Hardness-Rockwell	---	ISO 2039-2	73	M (Scale)
Hardness-Shore D	---	ISO 868	84	D
Charpy Impact Strength, Unnotched	23°C	ISO 179-1eU	N	kJ/m ²
Charpy Impact Strength, Notched	23°C, 3mm	b.o. ISO 179-1eA	80	kJ/m ²
Coefficient of friction	---	ISO 9352	0.55	---
III. Thermal property				
Thermal deformation temperature	1.82MPa	ISO 75-1.2	130~135	°C
Max. working temperature (long time)	---	UL764B	120	°C
Melting temperature	---	ISO 11357-3	220~230	°C
Brittle temperature	---	ISO 974	-130	°C
Thermal conductivity	23°C	DIN 11359	0.2	W/(m*K)
Coefficient of linear thermal expansion	---	ISO 11359	7.2	10 ⁻⁵ K ⁻¹

IV. Electrical property				
Dielectric constant	1MHz	IEC 60250	2.9	10 ⁶ Hz
Dielectric loss angle tangent	1MHz	IEC 60250	0.009	10 ⁶ Hz
Dielectric strength	---	IEC 60243-1	18	kV/mm
Volume resistivity	---	IEC 60093	≥10 ¹⁵	(Ω) * cm
Surface resistivity	---	IEC 60093	≥10 ¹⁵	(Ω)
Dielectric strength	2MM	IEC 60243-1	24	MV/m
	3MM	IEC 60243-1	17	MV/m
Electric arc resistance	3.1mm	IEC 61621	120	sec

NOTE: 1 g/cm³ = 1,000 kg/m³, 1 Mpa = 1 N/mm², 1kV/mm = 1 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.