Engineering Plastics
QUANDA
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Recalon®Conductive PA6 Technical Data Property Sheet

①raw materials description			
Standard grade:	Extrusion grade	**Appearance color:**	Black
Application:	Processing materials , plate, strip,tube, commonly used for electronic test jigs, fixtures, trays, rails, shield panels.		
Characteristics:	High mechanical strength, high rigidity, heat resistance, high wear resistance, high creep resistance.It has certain mechanical damping property and it is suitable for automatic lathe machining.		

②raw materials technical data				
Property item	**Test conditions(status)**	**Test method**	**Test data**	**Unit**
I.Physical properties				
Density	23°C	ASTM D792	1.24	g/cm^3
Shrinkage	---	ASTM D955	1.4-1.8	%
Equilibrium water absorption	23°C 60%RH	ASTM D570	1.5	%
Flammability class	---	UL94	HB	Class
Ⅱ.Mechanical properties				
Tensile strength	---	ASTM D-638	55	MPa
Elongation at break	---	ASTM D-638	5	%
Flexural strength	---	ASTM D-790	90	MPa
Flexural modulus	---	ASTM D-790	2200	MPa
Hardness-Shore D	---	ASTM D-2240	80	D
Charpy impact strength	---	ASTM D-256	45	J/M
Friction coefficient	---	DIN 53375	0.36	---
Ⅲ.Thermal properties				
Heat deflection temperature-HDT/A	1.80MPa	ASTM D648	90	℃
Max.working temperature-short time	---	UL746B	120	℃
Max.working temperature-long time	---	UL746B	105	℃
Melting point	---	ASTM D2133	240	℃
Brittle transition temperature	---	ASTM D746	¯20~¯30	℃
Thermal conductivity	23°C	ASTM C177	0.25	W/(m*K)
Coefficient of linear thermal expansion	---	ASTM D696	8	$\times 10^{-5}K^{-1}$
Ⅳ.Electrical properties				
Dielectric constant	1 MHz	IEC 60250	3.7	10^6Hz
Dielectric dissipation factor	1 MHz	IEC 60250	0.02	10^6Hz
Dielectric strength		IEC 60243	20	kV/mm

Volume resistivity	---	IEC 60093	10^3~10^5	(Ω) * cm
Surface resistivity	---	IEC 60093	10^3~10^5	(Ω)
NOTE: 1 g/cm^3 = 1,000 kg/m^3, 1 Mpa = 1 N/mm^2, 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.**				