Engineering Plastics
QUANDA
Shenzhen Quanda Plastic Co.,Ltd.
Web.:www.quandaplastic.com
Email: info@quandaplastic.com
Tel:0086-755-28113160

Recalon® PA6 Properties Data Sheet

①Raw material description			
Standard Grade:	Extrusion grade	**Appearance color:**	---
Applications:	Processing material , plate, bar, pipe, commonly used for bearings, gears, gear, cam, bevel gear, guard pipelines reservoir, cage, wheel covers, spoiler, fan air filter housings, radiator water chamber brake pipe, engine cover,car door operation handles and so on.		
Remarks:	Excellent mechanical strength, stiffness, heat and wear resistance, good creep resistance, mechanical damping properties and it is suitable for automatic lathe machining.		

②Raw material technical datasheet

Property item	Test conditions	Testing method	Testing data	Unit
I.Physical property				
Density	23°C	ISO 1183	1.13~1.15	g/cm^3
Shrinkage	---	ISO 2577	1.4-1.8	%
Absorption	24hr steeping（23°C)	ISO 62	≥3	%
Flammability class	---	UL94	HB	Class
Ⅱ.Mechanical property				
Impact strength	---	ISO 179-LeU	33	J/m
Tensile strength	---	ISO 527-2	＞60	MPa
Tensile strength at break	---	ISO 527-2	＞147	Mpa
Elongation at break	---	ISO 527-2	＞50	%
Flexural strength	---	ISO 178	≥90	MPa
Flexural modulus	---	ISO 178	2870	MPa
Hardness-Rockwell	---	ISO 2039-2	120	R （Scale）
Hardness-Shore D	---	ISO 868	74	D
Cantilever beam impact strength(unnotched)	23°C	ISO 180	10.7	kJ/m^2
Cantilever beam impact strength(notched)	---	ISO 179/1eA	＞5	kJ/m^2
Coefficient of friction	---	ISO 9352	0.38	---
Ⅲ.Thermal property				
Thermal deformation temperature	1.80MPa	ISO 75-1,2	≥70	℃
Max. working temperature(short time)	---	UL746B	180	℃
Max. working temperature(long time)	---	UL746B	105	℃
Melting temperature	---	ISO 3416	215-225	℃
Brittle temperature	---	ISO 974	-20~ -30	℃
Thermal conductivity	23°C	DIN 11359	0.28	W/(m*K)
Coefficient of linear thermal expansion	---	ISO 11359	6.5	$\times 10^{-5} K^{-1}$

Ⅳ.Electrical property				
Dielectric constant	1 MHz	IEC 60250	3.7	10^6Hz
Dielectric loss angle tangent	1 MHz	IEC 60250	0.02	10^6Hz
Dielectric strength		IEC 60243	20	kV/mm
Volume resistivity	---	IEC 60093	10^{14}	Ω * cm
Surface resistivity	---	IEC 60093	10^{16}	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.**				