



Typical Properties Data Sheet

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

Recalon® PA6+GF30% Properties Data Sheet

① Raw material description

Standard Grade:	Extrusion grade	Appearance:	---
Application:	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.		

② Raw material technical datasheet

Property item	Test conditions	Testing method	Testing data	Unit
I. Physical property				
Gravity	23°C	ISO 1183	1.37	g/cm ³
Shrinkage	Vertical flow direction	ISO 2577	0.13~0.7	%
Water absorption	23°C, 60%RH	ISO 62	1.8	%
Flammability class	---	UL94	HB	Class
II. Mechanical property				
Impact strength	23°C	ISO 179-LeU	95	KJ/m ²
Tensile strength	5mm/min	ISO 527	110	MPa
Nominal tensile strain	50mm/min	ISO 527	5	%
Elongation at break	---	ISO 527	3	%
Flexural Strength	5mm/min	ISO 178	250	MPa
Flexural Modulus of elasticity	2mm/min	ISO 178	3000	MPa
Hardness— Rockwell	---	ISO 2039-2	120	R (Scale)
IZOD Impact Strength (unnotched)	23°C	ISO 180-IC	70	KJ/m ²
IZOD Impact Strength (notched)	23°C	ISO 180-IA	16	KJ/m ²
III. Thermal Properties				
Heat deflection temperature HDT/A	1.80MPa	ISO 75-1,2	190	°C
Max.working temperature(short time)	---	UL746B	230	°C
Max.working temperature(long time)	---	UL747B	110	°C
Melting point	---	ISO 3416	220	°C
Thermal conductivity	23°C	DIN 11359	0.26	W/(m*K)
Coefficient of linear thermal expansion	---	ISO 11359	6.3	×10 ⁻⁵ K ⁻¹
IV. Electrical property				
Dielectric Constant	1 MHz	IEC 60250	5	10 ⁶ Hz
Dielectric loss angle tangent	1 MHz	IEC 60250	0.12	10 ⁶ Hz

Dielectric strength		IEC 60243	30	kV/mm
Volume resistivity	---	IEC 60093	10^{15}	(Ω) * cm
Surface resistivity	---	IEC 60093	10^{14}	(Ω)

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.