



Recalon® Flame Retardant Nylon Technical Data Property Sheet

① raw materials description

Standard grade:	Extrusion grade	Appearance color:	Black
Application:	Processing material, plates, strips, generally used for bearings, gears, gear, cam, bevel gear, protective cover of pipelines reservoir, cage, wheel covers, spoiler, fan air filter housings, radiator water chamber brake pipe, hood, door handles etc..		
Characteristics:	The flame retardant grade is V-0 grade, good mechanical strength, stiffness, heat and wear resistance and creep resistance, mechanical damping properties and It is suitable for automatic lathe machining.		

② raw materials technical data

Property item	Test conditions(status)	Test method	Test data	Unit
I. Physical properties				
Density	23°C	ASTM D792	1.22	g/cm ³
Shrinkage	---	ASTM D955	1.4-1.8	%
Equilibrium water absorption	23°C 60%RH	ASTM D570	1.28	%
Flammability class	---	UL94	V-0	Class
II. Mechanical properties				
Tensile strength	---	ASTM D-638	74	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	85	D
Impact strength	---	ASTM D-256	50	J/M
Friction coefficient	---	DIN 53375	---	---
III. Thermal properties				
Heat deflection temperature-HDT/A	1.80MPa	ASTM D648	70	°C
Max.working temperature-short time	---	UL746B	150	°C
Max.working temperature-long time	---	UL746B	100	°C
Melting point	---	ASTM D2133	220	°C
Brittle temperature	---	ASTM D746	-30~ -40	°C
Thermal conductivity	23°C	ASTM C177	0.23	W/(m*K)
Coefficient of linear thermal expansion	---	ASTM D696	8	×10 ⁻⁵ K ⁻¹
IV. Electrical properties				
Dielectric constant	1 MHz	IEC 60250	4.2	---
Dielectric dissipation factor	1 MHz	IEC 60250	0.032	---
Dielectric strength		IEC 60243	25	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.				