



Typical Properties Data Sheet

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

Recalon® MC Nylon 300 Properties Data Sheet

① Raw material description

Standard Grade:	Casting grade	Appearance:	---
Applications:	Processing material, sheet, strip, tube, used in machinery, instrument, automobile components, electronics, railway, household appliances, communication, frame, pipeline and other precision engineering.		
Remarks:	Character: excellent combination properties, high strength, rigidity and hardness, creep resistance, wear resistance, heat-proof aging, good mechanical properties.		

② Raw material technical data sheet

Property item	Test conditions	Testing method	Testing data	Unit
I. Physical property				
Density	23°C	ASTM D792	1.15	g/cm ³
Shrinkage	---	ASTM D955	1.5~1.8	%
Water absorption	Impregnation (23°C)	ASTM D570	1.25	%
Flammability class	---	UL94	self-extinguish	---
II. Mechanical property				
Impact strength	23°C	ASTM D256	15	kJ/m ²
Tensile strength	---	ASTM D638	54.6	MPa
Tensile strength at break	---	ASTM D638	---	---
Elongation at break	---	ASTM D638	80	%
Flexural Strength	---	ASTM D790	65.4	MPa
Flexural Modulus of elasticity	---	ASTM D790	3100	MPa
Hardness— Rockwell	---	ASTM D785	110	R (Scale)
Hardness—Shore D	---	ASTM D2240	80	D
Impact Strength (notched)	---	ASTM D256	15.6	kJ/m ²
Friction Coefficient	---	ASTM D1894	0.44	---
III. Thermal property				
Heat deflection temperature HDT/A	0.45MPa	ASTM D648	211.4	°C
Max. working temperature (long time)	---	UL746B	100	°C
vicat softening point	---	ASTM D2133	215.4	°C
Brittle temperature	---	ASTM D746	-9	°C
Thermal conductivity	23°C	ASTM C177	0.349	W/(m*K)
Coefficient of linear thermal expansion	-30~30°C	ASTM D696	8.13×10 ⁻⁵	1/°C
IV. Electrical property				
Dielectric Constant	1 MHz	ASTM D150	3.7	10 ⁶ Hz
Dielectric loss angle tangent	1 MHz	ASTM D150	0.02	10 ⁶ Hz

Dielectric strength		ASTM D149	10	kV/mm
Volume resistivity	---	ASTM D257	10^{15}	(Ω) * cm
Surface resistivity	---	ASTM D257	$\geq 10^{13}$	(Ω)
<p>Note: $1 \text{ g/cm}^3 = 1,000 \text{ kg/m}^3$, $1 \text{ Mpa} = 1 \text{ N/mm}^2$, $1 \text{ kV/mm} = 1 \text{ MV/m}$</p> <p>Statement:</p> <p>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.</p>				