Engineering Plastics
QUANDA
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Recalon® MC Nylon Properties Data Sheet

①Raw 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:	Charactor: excellent combination properties,high strength,rigidity and hardness,creep resistance, wear resistance,heat-proof aging, good mechanical properties.		

②Raw material technical datasheet				
Property item	**Test conditions**	**Testing method**	**Testing data**	**Unit**
I.Physical property				
Density	23°C	ASTM D792	1.14~1.16	g/cm^3
Shrinkage	---	ASTM D955	1.5~1.8	%
Water absorption	Impregnation（23°C)	ASTM D570	＞0.9	%
Flammability class	---	UL94	self-extinguish	---
Ⅱ.Mechanical property				
Impact strength	23°C	ASTM D256	15	kJ/m^2
Tensile strength	---	ASTM D638	75~96	MPa
Tensile strength at break	---	ASTM D638	---	---
Elongation at break	---	ASTM D638	20	%
Flexural Strength	---	ASTM D790	90	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	11	kJ/m^2
Friction Coefficient	---	ASTM D1894	0.36	---
Ⅲ.Thermal property				
Heat deflection temperature HDT/A	1.82MPa	ASTM D648	93	℃
Max.working temperature(long time)	---	UL746B	120	℃
Melting point	---	ASTM D2133	220	℃
Brittle temperature	---	ASTM D746	—9	℃
Thermal conductivity	23°C	ASTM C177	0.28	W/(m*K)
Coefficient of linear thermal expansion	---	ASTM D696	≤7.56	$\times 10^{-5} K^{-1}$
Ⅳ.Electrical property				
Dielectric Constant	1 MHz	ASTM D150	3.7	10^6Hz
Dielectric loss angle tangent	1 MHz	ASTM D150	0.02	10^6Hz

Dielectric strength		ASTM D149	10	kV/mm
Volume resistivity	---	ASTM D257	10^{15}	(Ω) * cm
Surface resistivity	---	ASTM D257	$\geqslant 10^{13}$	(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.