

TYPICAL PROPERTIES DATA SHEET

Hony Engineering Plastics Limited

HONY® MC Nylon 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 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	°C
Max. working temperature(long time)	---	UL746B	120	°C
Melting point	---	ASTM D2133	220	°C
Brittle temperature	---	ASTM D746	-9	°C
Thermal conductivity	23°C	ASTM C177	0.28	W/(m*K)
Coefficient of linear thermal expansion	---	ASTM D696	≤7.56	×10 ⁻⁵ K ⁻¹
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	≥10 ¹³	(Ω)

Note: 1 g/cm³ = 1,000 kg/m³, 1 Mpa = 1 N/mm², 1kV/mm = 1 MV/m