NYLATRON® MC 901 / GSM / NSM / GS

PolyAmide (Nylon)

Nylon offer extremely good wear resistance, couple with high tensile strength and modulus of elasticity. They also have high impact resistance, a high heat distortion temperature, and resist wear, abrasion, and vibration. In addition, nylons can withstand sustained contact with a wide variety of chemicals, alkalies, dilute acids or oxidizing agents.

ADVANTAGES:

· High Mechanical Strength, Stiffness, Hardness And Toughness · Good Fatigue Resistance · High Mechanical Damping Ability · Good Sliding Properties · Excellent Wear Resistance · Good Electrical Insulating Properties · High Resistance Against High Energy Radiation (Gamma And X-rays) · Good Machinability

APPLICATIONS INCLUDE:

· Sleeve And Slide Bearings · Cutting And Chopping Boards · Support And Guide Wheels · Sleeves For Wheels And Rollers, Pulleys And Pulley-Linings, Cams · Conveyor Rollers · Tension Rollers · Buffer Blocks · Hammer Heads · Scrapers · Gear Wheels · Starwheels · Sprockets · Feed Screws · Seal-Rings · Wear Pads · Insulators

*** NYLATRON® is the registered trademark of*

MITSUBISHI CHEMICAL ADVANCED MATERIALS

GENERAL PROPERTIES	ASTM or UL Test	NYLATRON MC 901 (Cast)	NYLATRON GSM (Cast)	NYLATRON NSM (Cast)	NYLATRON GS (Extruded)
COLOUR		Blue	Grey-Black	Grey	Grey-Black
PHYSICAL					
Specific Gravity (g/cm^3)	D792	1.15	1.16	1.15	1.16
Water Absorption, 24 hrs (%)	D570	0.6	0.6	0.3	0.3
MECHANICAL @ 73˚F					
Tensile Strength (psi)	D638	12,000	11,000	11,000	12,500
Tensile Strain at Break (%)	D638	20	30	20	25
Tensile Modulus of Elasticity (psi)	D638	400,000	400,000	410,000	480,000
IZOD Impact Strength, Notched (ft.lb./in)	D256	0.4	0.5	0.5	0.5
Rockwell Hardness	D785	M 85	M 84	M 81	M 88
THERMAL					
Coeff. of Linear Thermal Expansion (in./in./°F)	E831	$5x\ 10^{-5}$	5×10^{-5}	5.5×10^{-5}	4×10^{-5}
Heat Deflection Temp (°F / °C) @ 1.8 MPa	D648	200 / 93	200 / 93	200 / 93	200 / 93
Thermal Conductivity at 23 °C (BTU IN./Chr/ft^2°FJ)	-	2.37	-	-	1.70
Flammability Rating @ (3mm thickness)	UL-94	HB	HB	HB	HB
ELECTRICAL					
Surface Resistivity (ohms/sq)	ANSI / ESD STM 11.11	$> 10^{13}$	$> 10^{13}$	$> 10^{13}$	$> 10^{13}$
Volume Resistivity (ohm-cm)	{60093}	$> 10^{14}$	$> 10^{14}$	$> 10^{14}$	$> 10^{14}$
Dielectric Dissipation Factor Tan δ : at 1MHz	D150	3.7	3.7	-	-
Electric Strength (volts/mil)	D149	500	400	400	350

NOTE: The information contained here in is typical values intended for reference only. They should NOT be used as a basis for design specifications or quality control.