



LEHIGH VALLEY PLASTICS

We Shape The Industry

Nylatron® GSM Blue Nylon, Type 6, oil and MoS2 filled, cast

MECHANICAL PROPERTIES	ENGLISH VALUES	COMMENTS	METRIC VALUES
Specific Gravity	1.15	ASTM D792	1.15
Tensile Strength, psi	10000	ASTM D638	69 MPa
Tensile Modulus, psi	500000	ASTM D638	3,448 MPa
Elongation, %	30	ASTM D638	30 %
Flexural Strength, psi	15000	ASTM D790	103 MPa
Flexural Modulus, psi	500000	ASTM D790	3,448 MPa
Compressive Strength, psi	13000	ASTM D695, 10% Def.	90 MPa
Compressive Modulus, psi	425000	ASTM D695	2,930 MPa
Hardness, Rockwell M	80	ASTM D785	80
Hardness, Rockwell R	117	ASTM D785	117
Izod Impact (Notched), ft-lb/in	0.9	ASTM D256 Type A	48 J/m
Coefficient of Friction, Dynamic	0.18	Dry vs. Steel, QTM55007	0.18
Limiting PV, psi-fpm	5500	4:1 safety factor; QTM 55007	0.19 MPa-m/sec
k (wear) factor, 10 ⁻¹⁰ in ³ -min/lb-ft-hr	65	QTM 55010	65 10 ⁻¹⁰ in ³ -min/lb-ft-hr
Relative Machinability	1	1-10, 1=Easier to Machine	1
THERMAL PROPERTIES	ENGLISH VALUES	COMMENTS	METRIC VALUES
Coefficient of Thermal Expansion, 10E-4/°F	0.55	ASTM E831 (-40°F to 300°F)	0.99 10 ⁻⁴ /K
Deflection Temperature 264 psi, °F	200	ASTM D648	93 °C
Melting Point (Crystalline) Peak, °F	420	ASTM D3418	216 °C
Continuous Service in Air (Max), °F	200	Long Term	93 °C
ELECTRICAL PROPERTIES	VALUES	COMMENTS	METRIC VALUES
Surface Resistance, Ohm/Square	1E+13	Lower Limit; EOS/ESD S11.111	1E+13 Ohm/Square
CHEMICAL PROPERTIES	ENGLISH VALUES	COMMENTS	METRIC VALUES
Water Absorption Immersion, 24 hr., %	0.3	ASTM D570(2)	0.3 %
Water Absorption Immersion Sat, %	6	ASTM D570(2)	6 %
Acids, Weak (acetic, dilute HCl)	2	Limited Service	2
Acids, Strong (conc. HCl or sulfuric)	1	Unacceptable	1
Alkalies, Weak (dilute NaOH)	2	Limited Service	2
Alkalies, Strong (conc. NaOH)	1	Unacceptable	1
Hydrocarbons, Aromatic (toluene)	3	Acceptable Service	3
Hydrocarbons, Aliphatic (gasoline)	3	Acceptable Service	3
Ketones, Esters (acetone)	3	Acceptable Service	3
Ethers (diethyl ether, THF)	3	Acceptable Service	3
Chlorinated Solvents (methylene chloride)	2	Limited Service	2
Alcohols (methanol, anti-freeze)	2	Limited Service	2
Continuous Sunlight	2	Limited Service	2
COMPLIANCE	ENGLISH VALUES	COMMENTS	METRIC VALUES
Flammability, UL94 (5=V-0; 4=V-1; 3=V-2; 1=HB)	1 (HB)	UL94; 1/8 inch	1
FDA (1=Yes)	0	Not Compliant	0

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