

DATA SHEET

OIL FILLED NYLON

Type 6 Cast Nylon (Polyamide) with Oil Lubricant

PROPERTY	UNITS	VALUE
MECHANICAL		
Specific Gravity	-	1.14
Tensile Strength	psi	10,500
Tensile Modulus	psi	400,000
Elongation (at break)	%	30
Flexural Strength	psi	13,000
Flexural Modulus	psi	450,000
Compressive Strength	psi	13,000
Hardness, Rockwell	-	R108
Coefficient of Friction (Dry vs. Steel)	-	.18
Limiting PV (with 4:1 safety factor)	psi x fpm	5,500
THERMAL		
Coefficient of Linear Thermal Expansion	in/in/F	5.00×10^{-5}
Heat Deflection Temperature (264 psi)	F	200
Glass Transition Temperature	F	145
Continuous Service Temperature	F	200
Thermal Conductivity	BTU/in/hr.ft.F	1.7
ELECTRICAL		
Dielectric Strength	volts/mil	500
Volume Resistivity	ohm-cm	$>10^{13}$
OTHER		
Water Absorption, Immersion, 24 hrs.	% by wt.	.3
Water Absorption, Immersion, Saturation	% by wt.	7.0

ENGINEERING NOTES:

- * Wear resistance is much better when dry
- * Excellent abrasion resistance (SSI - 44)
- * Low slip-stick
- * Good chemical resistance