

## DATA SHEET

### PA 6 NATURAL

#### Unfilled Type 6 Cast Nylon (Polyamide)

PROPERTY	UNITS	VALUE
<b>MECHANICAL</b>		
Specific Gravity	-	1.15
Tensile Strength	psi	12,000
Tensile Modulus	psi	400,000
Elongation (at break)	%	20
Flexural Strength	psi	16,000
Flexural Modulus	psi	500,000
Compressive Strength	psi	15,000
Hardness, Rockwell	-	R115
Coefficient of Friction (Dry vs. Steel)	-	.20
Limiting PV (with 4:1 safety factor)	psi x fpm	3,000
<b>THERMAL</b>		
Coefficient of Linear Thermal Expansion	in/in/F	$5.00 \times 10^{-5}$
Heat Deflection Temperature (264 psi)	F	200
Glass Transition Temperature	F	145
Continuous Service Temperature	F	200/260
Thermal Conductivity	BTU/in/hr.ft.F	1.7
<b>ELECTRICAL</b>		
Dielectric Strength	volts/mil	500
Volume Resistivity	ohm-cm	$>10^{13}$
<b>OTHER</b>		
Water Absorption, Immersion, 24 hrs.	% by wt.	.3
Water Absorption, Immersion, Saturation	% by wt.	7.0

#### **ENGINEERING NOTES:**

- \* FDA, USDA, 3-A DAIRY compliant
- \* Wear resistance is much better when dry
- \* Excellent abrasion resistance (SSI - 44)
- \* Heat stabilized version, MC901, has CUT of 260
- \* Good chemical resistance

