

# TECAST T Natural Cast Nylon 6

Compare TECAST T Natural



TECAST™ cast nylon, available in a variety of grades, offers a combination of good mechanical properties, excellent bearing and wear characteristics, and the large-size capabilities of the casting process. Its fatigue resistance, noise damping ability, corrosion resistance, and light weight make TECAST™ ideal for metal replacement applications, such as bearings, gears, sheaves, and sprockets. At one-eighth the weight of bronze, TECAST™ is easier to handle and maintain than metals such as iron, aluminum, brass, and bronze, which it typically replaces in industrial wear applications. Other materials that TECAST™ commonly replaces because of its superior performance are laminated phenolics, elastomers, and wood. TECAST™ has excellent wear and abrasion resistance, resulting in extended component life and lower maintenance cost. Its formulations are readily available in rod, plate, and tube. Nonstandard shapes, such as rings, discs, and blocks can be economically produced in small quantities with short lead times. Custom parts can be cast-to-size or near-net-shape with relatively inexpensive tooling.

- **TECAST™ T Natural**  
A cast type 6 nylon used in applications requiring cast nylon advantages without fillers.

---

- **TECAST™ T BLACK**  
A black cast type 6 nylon that is more UV resistant than natural.

---

- **TECAST™ T BLUE**  
A blue cast type 6 nylon with properties similar to TECAST T. Heat stable but with improved heat resistance properties.

---

- **TECAST™ T MO**  
A molybdenum disulfide-filled cast type 6 nylon used for general bearings and wear applications because of its superior strength and hardness.

---

- **TECAST™ 6PAG**  
A graphite powder-filled cast type 6 nylon with properties similar to TECAST T MO but better suited to wet applications.

---

- **TECAST™ 6XAU**  
A high heat (up to 260°F continuous), weather resistant cast type 6 nylon with superior fatigue-resistance and bearing properties.

---

- **TECAST™ L**  
An oil-filled cast type 6 nylon used in applications requiring excellent bearing and wear properties where external lubrication is difficult or impractical.

---

*Its unique combination of strength, wear resistance, toughness, machinability, and corrosion resistance make TECAST™ cast nylon ideal for bearings, thrust washers, bushings, wear pads, sheaves, rollers, gears, sprockets, and wheels. TECAST™ is commonly used in construction equipment, material handling systems, amusement park rides, pulp and paper processing equipment, steel mills and industrial equipment.*

	Properties	Condition	Units	Value
	Chemical Designation			PA 6
Physical	Filler			
	Density		g/cm <sub>3</sub>	1.15
	Tensile Modulus	@ 73 °F	PSI	400,000
	Tensile Strength @ Yld	@ 73 °F	PSI	12,000
	Tensile Strength @ Brk	@ 73 °F	PSI	12,000
	Shear Strength	@ 73 °F	PSI	
	Elongation @ Yld	@ 73 °F	%	4
	Elongation @ Brk	@ 73 °F	%	25

	Flexural Modulus	@ 73 °F	PSI	400,000
Mechanical	Flexural Strength	@ 73 °F	PSI	12,500
	Compressive Modulus	@ 73 °F	PSI	421,000
	Compressive Strength	@ 73 °F, 10% strain	PSI	
	Izod (charpy) Impact Strength	@ 73 °F	ft-lbs/in	0.60
	Rockwell Hardness	@ 73 °F	M (R) Scale	115
	Coefficient of Friction	Static		
	Coefficient of Friction	Dynamic, 40 PSI, 50 FPM		0.26
	Wear (K) Factor		in_min/ft-lbs-hr	200*10 <sup>-10</sup>
	Limiting PV		psi-fpm	
	Vicat Softening Point		°F	
	Melting Temperature		°F	428
	Heat Deflection Temperature	@ 66	°F	370
	Heat Deflection Temperature	@ 264	°F	200

[Ensinger Global Sites](#) ▼

© Copyright Ensinger Inc. 2017

Ensinger Inc. · 365 Meadowlands Boulevard, Washington, PA 15301 · Tel: 800-243-3221


[Legal](#) | [Terms & Conditions](#)

	Specific Heat		BTU/lb-°F	0.40
	Thermal Conductivity		BTU-in/hr-ft_°F	1.67
	Surface Resistivity		ohms/square	1.0*10 <sup>14</sup>
	Volume Resistivity		ohm-cm	1.0*10 <sup>14</sup>
Electrical	Dielectric Strength		V/mil	500
	Dielectric Contant	@ 60 HZ, 73 °F, 50% RH		3.7
	Dissipation Factor	@ 60 Hz, 73 °F		
	Moisture Absorption	@ 24 hrs, 73 °F	%	1.2
	Moisture absorption	@ Saturation, 73 °F	%	5.5
Other	Flammability	UL 94		HB
	Food Grade			N
	Relative Cost			\$

[Top](#)