

TECAST™ 6PAL

Polyamide 6

Ensinger Inc.

Message:

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.

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.

An oil-filled cast type 6 nylon used in applications requiring excellent bearing and wear properties where external lubrication is difficult or impractical. It is also available for food grade applications.

General Information	
Additive	Lubricant 2
Features	Noise reduction
	Machinable
	Good corrosion resistance
	Good wear resistance
	Good wear resistance
	Fatigue resistance
	Good toughness
	Lubrication
	Compliance of Food Exposure
Uses	Wheels
	Bushing
	Gear
	Industrial application
	Roller
	Architectural application field
	Metal substitution
	Thrust washer
	Bearing
Forms	Plate
	Bar
	Pipe

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.14 - 1.15	g/cm ³	ASTM D792
Water Absorption (23°C, 24 hr)	0.75	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 23°C)	100		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2410	MPa	ASTM D638
Tensile Strength (Yield, 23°C)	60.7	MPa	ASTM D638
Tensile Elongation (Break, 23°C)	25	%	ASTM D638
Flexural Modulus (23°C)	2240	MPa	ASTM D790
Flexural Strength (23°C)	86.2	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Unnotched Izod Impact (23°C)	64	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Melting Temperature	220	°C	ASTM D2133
CLTE - Flow	7.2E-5	cm/cm/°C	ASTM D696
Maximum Service Temperature			
Intermittent	166	°C	
Long Term	93	°C	UL 746B
Additional Information			

Data obtained from extruded shapes material.

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Recommended distributors for this material

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WECHAT