CRAFTECH®
INDUSTRIES, INC.

Cast Nylon 6

Heat Stabilized

KEY FEATURES

- Can Work at High Operating Temperatures
- Retains Physical Properties Under Higher Temperatures
- Light Weight
- Excellent Abrasion and Wear Resistance
- Easy to Machine

DESCRIPTION

Heat Stabilized Cast Nylon 6 has a heat stabilizer that retards the loss of physical properties as temperature increases. This allows the material to function at approximately 10% higher temperatures than standard grades. This means that Heat Stabilized Nylon 6 operating at 200°F will have approximately the same physical properties as a standard grade operating at 185°F.

TYPICAL PROPERTY VALUES

	Properties	Condition	Units	Value	ASTM Test
Physical	Density		g/cm^3	1.15 - 1.17	D792
	Chemical Designation			PA6	
	Filler			Heat Stabilized	

	Properties	Condition	Units	Value	ASTM Test
Mechanical	Tensile Modulus	@ 73 °F	PSI	450,000 - 550,000	D638
	Tensile Strength	@ 73 °F	PSI	10,000 - 13,500	D638
	Shear Strength	@ 73 °F	PSI	10,000 - 11,000	D732
	Tensile Elongation	@ 73 °F	%	20 - 30	D638
	Flexural Modulus	@ 73 °F	PSI	420,000 - 500,000	D790
	Flexural Strength	@ 73 °F	PSI	15,000 - 17,500	D790
	Compressive Modulus	@ 73 °F	PSI	325,000 - 400,000	D790
	Compressive Strength	@ 73 °F, 10% strain	PSI	13,500 - 16,000	D695
	Izod (Charpy) Impact Strength	@ 73 °F	ft-lbs/in	1.0 - 2.5	D256
	Rockwell Hardness	@ 73 °F	M (R) Scale	110 - 120	D785
	Deformation Under Load		%	0.5 - 2.6	D 21
	Coefficient of Friction	Dynamic		0.26	D1894

	Properties	Condition	Units	Value	ASTM Test
Thermal	Heat Deflection Temperature	@ 66 PSI	°F	300 - 450	D648
	Service Temperature	Long Term	°F	250	
	Heat Deflection Temperature	@ 264 PSI	°F	200 - 400	D648
	Service Temperature	Intermittent	°F	350	
	Thermal Expansion (CLTE)		in/in/°F	$5.0*10^{-5}$	D696

	Properties	Condition	Units	Value	ASTM Test
Electrical	Dielectric Strength		V/mil	500 - 600	D149
	Dielectric Constant	@60 Hz		3.7	D150
	Dielectric Constant	@1000 Hz		3.7	D150
	Dielectric Constant	@1 MHz		3.7	D150

	Properties	Condition	Units	Value	ASTM Test
Other	Moisture Absorption	@ 24 hrs	%	0.5 - 0.6	D570
	Moisture Absorption	@ Saturation	%	4.0 - 6.0	D570
	FDA Compliant			No	
	USDA 3A Compliant			No	
	UL 94 HB Compliant			Yes	

- The data stated above are typical values intended for reference and comparison purposes only.
- The data should not be used as a basis for design specifications or quality control.
- The information is provided as a guide to the best of our knowledge and given without obligation or liability.
- Testing under individual application circumstances is recommended