

Nycast XHA Blue

(Blue Heat Stabilized Monomer Cast Nylon)

Technical Data Sheet



Gantiel Vensott
Engineering Plastic Solutions

Ph: +61 2 9609 5090 E: sales@gantiel.com
4 Davis Road, Wetherill Park, NSW 2164
P.O.Box 586 Baulkham Hills NSW 1755
ABN: 87 108 071 512

Product Description

Nycast® XHA Blue has a heat stabilizer that retards the loss of physical properties as temperature increases. This allows the material to function at approximately 10% higher temperature than standard grades; meaning Nycast® XHA Blue operating at 200° F will have approximately the same physical properties as a standard grade operating at 185° F. Maximum intermittent temperature for Nycast® XHA Blue is 330° F and continuous operating temperature is 250° F (compared to 230° F for standard grades).

Applications

Nycast® XHA Blue is used for a wide range of industrial components. Some examples: wear pads, support and guide wheels, conveyor rollers, tension rollers, sleeves for wheels and rollers, pulleys and pulley linings, sprockets, insulators, pump components, locking sleeves, high temperature gears, friction washers etc.

Other Material Properties

Nycast® XHA blue is a material that offers superior performance at elevated temperatures, comparing to a standard grade, as well as resistance to brittleness and deterioration.

Key Features and Benefits

- Improved Load Bearing
- Heat Water Stabilization Properties
- Good Dimensional Stability
- Excellent Mechanical, Thermal and Chemical Resistance Properties
- Reduced Water Absorption

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Properties	Value	Unit	ASTM Test Method
Specific Gravity	1.15-1.17	g/cm ³	D792
Tensile Strength	>75	MPa	D638
Tensile Elongation	>20	%	D638
Tensile Modulus	>3000	MPa	D638
Compressive Strength	13,500 – 16,000	psi	D695
Compressive Modulus	325,000 – 400,000	psi	D695
Flexural Strength	110	MPa	D790
Flexural Modulus	420,000 – 520,000	psi	D790
Shear Strength	10,000 – 11,000	psi	D732
Notched Izod Impact	>4	kJ/m ²	D256
Hardness Rockwell	83	M	D785
Hardness, Shore	78 - 86	D	D2240
Melting Point	215-220	°C	D3418
Coefficient of Linear Thermal Expansion	80-95 x 10 ⁻⁶	m/(m.K)	D696
Deformation Under Load	0.5 – 2.6	%	D621
Deflection Temperature			
264 psi	200 – 400	°F	D648
66 psi	300 – 450	°F	D648
Continuous Service Temperature	110	°C	-
Intermittent Service Temperature	165	°C	-
Coefficient of Friction, Dynamic	0.26		D1894
Water Absorption			
24 hours	0.5 - 0.8	%	D570
Saturation	4.0 – 6.7	%	D570
Dielectric Strength	500 – 600	v/mil.	D149
Dielectric Constant			
60 Hz	3.7		D150
1000 Hz	3.7		D150
1 MHz	3.7		D150

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