Nycast 6PA

Polyamide 6

Cast Nylons Ltd.

Message:

Two of the most widely used cast nylons in the industry, NYCAST XHA BLUE and NYCAST 6PA NATURAL have delivered successful performance - with and without lubrication - in a variety of diverse applications, particularly as a bearing material. They are lightweight, offer extremely good wear resistance, high tensile strength and high modulus of elasticity.
Other significant properties include:
High impact resistance
Excellent vibration resistance
Resistance to brittleness and deterioration
Easy machinability and abrasion resistance
High heat distortion temperature

General Information			
UL YellowCard	E242146-270061		
Features	Good Abrasion Resistance Good Wear Resistance High Elasticity High Heat Resistance High Impact Resistance High Tensile Strength Machinable		
Uses	Automotive Applications Bearings Bushings Construction Applications Marine Applications Mining Applications Seals Textile Applications Wear Strip		
Agency Ratings	FDA Food Contact, Unspecified Rating USDA 3A		
Appearance	Natural Color		
Forms	Preformed Parts		
Processing Method	Casting		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.15 to 1.17	g/cm^3	ASTM D792
Water Absorption			ASTM D570

24 hr	0.50 to 0.60	%	
Saturation	5.0 to 6.0	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	115 to 125		ASTM D785
Durometer Hardness (Shore D)	78 to 83		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2760 to 3790	MPa	ASTM D638
Tensile Strength	68.9 to 93.1	MPa	ASTM D638
Tensile Elongation (Break)	20 to 55	%	ASTM D638
Flexural Modulus	2900 to 3450	MPa	ASTM D790
Flexural Strength	107 to 121	MPa	ASTM D790
Compressive Modulus	2240 to 2760	MPa	ASTM D695
Compressive Strength	93.1 to 110	MPa	ASTM D695
Shear Strength	68.9 to 75.8	MPa	ASTM D732
Coefficient of Friction (vs. Itself - Dynamic)	0.22		ASTM D1894
Deformation Under Load	0.500 to 2.50	%	ASTM D621
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	37 to 48	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	204 to 221	°C	
1.8 MPa, Unannealed	93.3 to 204	°C	
Continuous Use Temperature	110	°C	ASTM D794
Melting Temperature	227 to 238	°C	
CLTE - Flow	1.1E-4	cm/cm/°C	ASTM D696
Service Temperature - Intermittent	166	°C	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength	20 to 24	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	3.70		
1 kHz	3.70		
100 kHz	3.70		
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating	HB		UL 94

Recommended distributors for this material

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