CAST NYLONS LIMITED

Discover the NYCAST® Advantage

NYCAST® CP 6/12

Highly resilient, with higher tensile elongation and impact strength than standard grades, NYCAST CP has proven itself in many applications requiring an extra degree of toughness. A copolymer of caprolactam and laurinlactam, NYCAST CP was originally developed specifically for use in ball valve seats in the oil and gas industry. This durable material provides an economical, high-performance bridge between NYCAST 6 and NYCAST 12 formulations.

NYCAST CP with its higher elongation, superior dimensional stability and safety yellow color has found itself a superior choice for wobbler box inserts and coupling boxes in the cold rolling steel industry as well as mandrels covers used in paper tube manufacturing plants.

- High impact resistance
- High tensile elongation
- Reduced water absorption
- Lower hardness
- Easy to machine

Product Data Sheet: NYCAST® CP 6/12

Property	Units	ASTM Test Method	NYCAST® CP 6/12
Specific Gravity	g/cm^3	D 792	1.10 - 1.13
Tensile Strength	psi	D 638	9,000 - 11,000
Tensile Elongation	%	D 638	25 - 40
Tensile Modulus	psi	D 638	375,000 - 475,000
Compressive Strength	psi	D 695	12,000 - 14,000
Compressive Modulus	psi	D 695	275,000 - 375,000
Flexural Strength	psi	D 790	13,000 - 16,000
Flexural Modulus	psi	D 790	325,000 - 475,000
Shear Strength	psi	D 732	7,500 - 9,000
Notched Izod Impact	ft.lbs/in.	D 256	2,0 - 4,0
Hardness Rockwell	R	D 785	110 - 110
Hardness, Shore	D	D 2240	74 - 80
Melting Point	°F	D 3418	400 +/- 10
Coefficient of Linear Thermal Expansion	in./in./°F	D 696	4.0 - 5.0 * 10^{-5}
Deformation Under Load	%	D 621	1.0 – 3.0
Deflection Temperature			
264 psi	°F	D 648	200 - 300
66 psi	°F	D 648	300 - 400
Continuous Service Temperature	°F	-	210
Intermittent Service Temperature	°F	-	300
Coefficient of Friction, Dynamic		D 1894	0.26
Water absorption			
24 Hours	%	D 570	0.2 - 0.3
Saturation	%	D 570	3.0 - 5.0
Dielectric Strength	v/mil.	D 149	500 - 600
Dielectric Constant			
60 Hz		D 150	3.7
1000 Hz		D 150	3.7
1 MHz		D 150	3.7

The facts stated and recommendations contained herein are based on experiments and information believed to be reliable. No guarantee is made of the accuracy, however, and the products are sold without warranty, expressed or implied, and upon the conditions that purchasers shall conduct tests to determine suitability for their intended use.

Certified to ISO 9001:2008

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