



NYCAST® CP – IMPACT MODIFIED MATERIAL

Nycast®CP being highly resilient, with higher tensile elongation and impact strength than standard grades has proven itself in many applications requiring an extra degree of toughness. A copolymer of caprolactam and laurilactam, 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 and mandrels covers in paper tube manufacturing plants.

Applications:

- Valve Seat
- Seals
- Mandrel Sleeves
- Paper Processing
- Slipper Blocks
- Coupling Boxes



About Cast Nylons Limited

Cast Nylons Limited made its first casting in 1980 and has continued to grow and develop new cast nylon products for almost 30 years.

Located in Willoughby, Ohio, Cast Nylons Limited is the premier producer of cast nylon in North America, offering over 20 standard NYCAST grades & 22 custom formulations, superior product quality, an extensive inventory, and exceptional customer service.

For product support or services call us at 800-543-3619 or visit us our website at www.castnylon.com



Material Specifications – Nycast® CP

Property	Units	ASTM Test Method	NYCAST® CP
Specific Gravity		D792	1.10 – 1.13
Tensile Strength	psi	D638	8,700 – 11,500
Tensile Elongation	%	D638	25 – 80
Tensile	psi	D638	240,000 – 330,000
Compressive Strength	psi	D695	11,000 – 12,500
Compress Modulus	psi	D695	200,000 – 300,000
Flexural Strength	psi	D790	15,000 – 20,000
Flexural Modulus	psi	D790	285,000 – 385,000
Shear Strength	psi	D732	7,600 – 9,000
Notched Izod Impact	ft.lbs./in.	D256	0.9 – 1.4
Hardness, Rockwell	R	D785	100-115
Hardness, Shore	D	D2240	75-81
Melting Point	deg. F	D789	410±10
Coefficient of Linear Thermal Expansion	in./in./deg/F	D696	5 x 10 ⁻⁵
Deformation Under Load		D621	0.4 – 0.7
Deflection Temperature			
264 psi	deg. F	D648	200 - 400
66psi	deg. F	D648	400 - 430
Continuous Service Temperature	deg. F		210
Intermittent Service Temperature	deg. F		300
Coefficient of Friction: Dynamic (1)Static			0.22
Water Absorption			
24 hours	%	D570	0.5 – 0.6
2 hr. Boiling water	%	D570	--
Saturation	%	D570	4.0 – 5.00
Dielectric Strength	v/mil.	D149	500-600
Dielectric Constant			
60 cycles	D150		3.7
1,000 cycles	D150		3.7
100,000 cycles	D150		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 within warranty, expressed or implied, and upon the conditions that purchaser shall conduct their own test to determine suitability for their intended use.



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