



NYCAST® 12

NYCAST® 12, manufactured by Cast Nylons Limited, is the **only** cast nylon 12 material manufactured in North America. NYCAST® 12 gives engineers yet another superior choice from the **NYCAST®** family of premium grade cast nylons.

NYCAST® 12 is specially formulated and designed to offer:

- very low moisture absorption
- superior wear resistance
- dimensional stability
- exceptional lubrication ability
- outstanding mechanical characteristics
- high impact strength
- lower thermal expansion

Typical applications include:

- Wheels
- Rollers
- Bearings & Bushings
- Gears
- Valve Seals

Specify NYCAST® 12 for applications in industries such as:

- Power Transmission
- Amusement Park Rides
- Valve and Seal Manufacturers
- Food processing
- Marine

AVAILABILITY:

Rods: 2" – 12" Diameter
24" long

Custom Tube Sizes: quoted upon request



Cast Nylons Limited (CNL) has been manufacturing NYCAST® cast nylon stock shapes and molded components since March of 1980.

CNL is the premier producer of cast nylon in North America with:

- over fifteen different NYCAST® grades
- extensive \$800,000 inventory
- excellent customer service
- in house technical support
- superior product quality

CNL is located 15 miles east of Cleveland in Willoughby, Ohio.

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

NYCAST[®] 12

Properties

| Property | Units | Test Method | Nycast [®] 12 |
|-------------------------------------|--------------|-------------|------------------------|
| Specific Gravity | | ASTM D792 | 1.03 |
| Tensile Strength | psi | ASTM D638 | 7,900 |
| Tensile Elongation | % | ASTM D638 | > 50 |
| Tensile Modulus | psi | ASTM D638 | 230,000 |
| Compressive Strength | psi | ASTM D695 | 10,000 |
| Compressive Modulus | psi | ASTM D695 | 224,000 |
| Flexural Strength | psi | ASTM D790 | 9,000 |
| Flexural Modulus | psi | ASTM D790 | 238,000 |
| Shear Strength | psi | ASTM D732 | 6,100 |
| Notched Izod Impact | ft.lbs./in. | ASTM D256 | 3.02 |
| Hardness, Rockwell | R | ASTM D785 | 108 |
| Hardness, Shore D | D | ASTM D2240 | 76 |
| Melting Point | deg. F | ASTM D789 | 351 |
| Coef. Of Linear Thermal Expansion | in./in./deg. | ASTM D696 | 5.5x 10 ⁻⁵ |
| Deformation Under Load | F | ASTM D621 | |
| Deflection Temperature: 264 psi | deg. F | ASTM D648 | 124 |
| 66 psi | deg. F | ASTM D648 | 347 |
| Continuous Service Temperature | deg. F | | 250 |
| Intermittent Service Temperature | deg. F | | 300 |
| Coefficient of Friction: Dynamic | | | .2 - .3 |
| Water Absorption 24 Hours | % | ASTM D570 | 0.12 |
| Saturation | % | ASTM D570 | 0.66 |
| Dielectric Strength | v/mil. | ASTM D149 | 500 - 600 |
| Dielectric Constant | | ASTM D150 | |
| 60 cycles | | | 3.7 |
| 1000 cycles | | | 3.7 |
| 100,000 cycles | | | 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 purchaser shall conduct their own test to determine suitability for their intended use.