



Discover the NYCAST® Advantage

## NYCAST® 12

With its extremely low moisture absorption, the mechanical properties of NYCAST 12 remain virtually unaffected in a wide range of environments. NYCAST 12 offers superior performance in applications where dimensional stability, chemical resistance, dielectrics, abrasion resistance and impact strength are important factors. In wet or dry environments, indoor or outdoor, the low deformation and superior fatigue resistance properties of NYCAST 12 delivers unmatched performance in many high-speed wheel and roller applications.

This material is also well suited to use for power transmission components in material handling and transportation environments, as well as in structural and enclosure elements in sensitive electronic and manufacturing equipment.

CAST NYLONS LIMITED is the only producer of cast nylon 12 in North America.

- High impact resistance
- Low moisture absorption
- Excellent chemical resistance
- Low creep factor
- Excellent dimensional stability

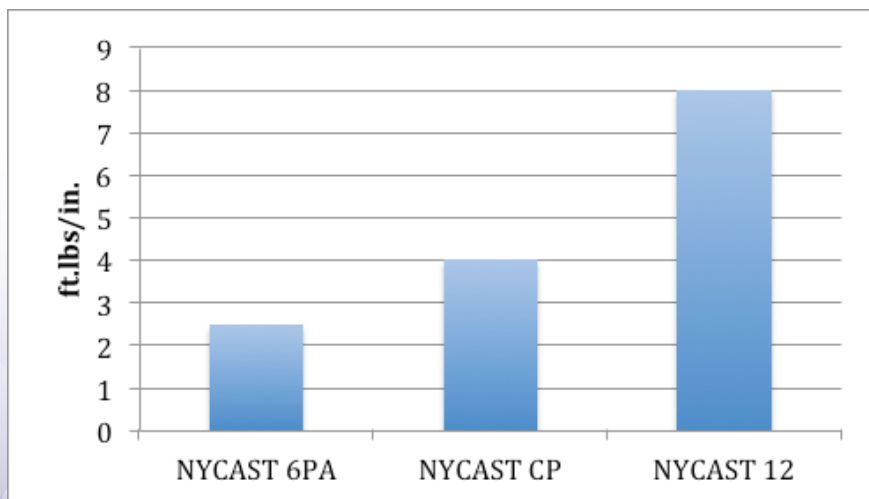


Chart: notch izod impact resistance (ASTM D256) various NYCAST grade

# Product Data Sheet: NYCAST® 12

Property	Units	ASTM Test Method	NYCAST® 12
Specific Gravity	g/cm <sup>3</sup>	D 792	1.03
Tensile Strength	psi	D 638	7,000 - 8,500
Tensile Elongation	%	D 638	10 - 20
Tensile Modulus	psi	D 638	320,000 - 380,000
Compressive Strength	psi	D 695	10,000 - 12,000
Compressive Modulus	psi	D 695	250,000 - 300,000
Flexural Strength	psi	D 790	10,000 - 12,000
Flexural Modulus	psi	D 790	260,000 - 300,000
Shear Strength	psi	D 732	6,000 - 8,000
Notched Izod Impact	ft.lbs/in.	D 256	4.0 - 8.0
Hardness Rockwell	R	D 785	100 - 110
Hardness, Shore	D	D 2240	75 - 80
Melting Point	°F	D 3418	350 +/- 10
Coefficient of Linear Thermal Expansion	in./in./°F	D 696	5.5 * 10 <sup>-5</sup>
Deformation Under Load	%	D 621	-
Deflection Temperature			
264 psi	°F	D 648	120 - 145
66 psi	°F	D 648	240 - 260
Continuous Service Temperature	°F	-	230
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	1.2 - 1.6
Dielectric Strength	v/mil.	D 149	400 - 450
Dielectric Constant			
60 Hz		D 150	3.5
1000 Hz		D 150	3.5
1 MHz		D 150	3.5

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