



NYCAST[®] 6PA MoS₂

NYCAST 6PA MoS₂ is manufactured to be a more crystalline product with improved wear resistance, improved compressive strength, and to be a popular choice as a dry lubricant -filled bearing material.

Cast Nylons Limited offers this material in more standard sizes than any manufacture in the industry. The ability to cast nylon vs. extrusion allows Cast Nylons Limited to create custom Near Net Shapes with ease for special applications



Typical applications for NYCAST 6PA MoS₂ would include:

- Bearings
- Gears
- Pulleys
- Sheaves
- Wear Shoes
- Wear Pads
- Valve seals
- Sprockets
- Wear Plate
- Thrust Washers

ADVANCED INDUSTRIAL

HIGH PERFORMANCE PLASTIC SHAPES // PRECISION CNC MACHINED COMPONENTS



Product Data Sheet: NYCAST® 6PA MoS₂

Property	Units	ASTM Test Method	NYCAST® 6PA MoS ₂
Specific Gravity	g/cm ³	D 792	1.15 - 1.17
Tensile Strength	psi	D 638	10,000 - 13,500
Tensile Elongation	%	D 638	20 - 55
Tensile Modulus	psi	D 638	400,000 - 550,000
Compressive Strength	psi	D 695	14,000 - 16,500
Compressive Modulus	psi	D 695	325,000 - 425,000
Flexural Strength	psi	D 790	15,000 - 18,000
Flexural Modulus	psi	D 790	400,000 - 520,000
Shear Strength	psi	D 732	10,000 - 11,000
Notched Izod Impact	ft.lbs/in.	D 256	1,4 - 2,4
Hardness Rockwell	R	D 785	110 - 120
Hardness, Shore	D	D 2240	78 - 86
Melting Point	°F	D 3418	430 +/- 10
Limiting Pressure Velocity*	psi-ft/min	-	3600
Coefficient of linear thermal expansion	in./in./°F	D 696	5.0 * 10 ⁻⁵
Deformation under load	%	D 621	0.5 - 2.6
Deflection Temperature			
264 psi	°F	D 648	200 - 300
66 psi	°F	D 648	300 - 400
Continuous service temperature	°F	-	230
Intermittent Service Temperature	°F	-	330
Coefficient of friction, dynamic		D 1894	0.22
Water absorption			
24 hours	%	D 570	0.5 - 0.6
Saturation	%	D 570	4.0 - 6.0
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

*Note: max P for dynamic bearings is 2,000 psi, max V is 400 fpm

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.