

NYCOA nanoTUFF™ NT - 90-100

Nylon 6 Nanocomposite.

NYCOA nanoTUFF™ NT - 90-100 is Nylon 6 based Nanocomposite with 10% clay loading made via in-situ polymerization for optimum nano-clay exfoliation.

NYCOA nanoTUFF™ NT - 90-100 can be tailor-made to any specific viscosity range, depending upon the final application. This grade offers a 100% improvement in stiffness vs. neat Nylon 6, and is comparable in stiffness to a 20% glass-filled Nylon. In addition, barrier properties to water, oxygen, carbon dioxide, and fuel are improved approximately 80% vs. neat Nylon 6.

Property	Method	English		SI	
		Unit	Value	Unit	Value
Physical Properties					
Specific Gravity	D 792	-	1.16	-	1.16
Water Absorption, 24 hr	D 570	%	N/A	%	N/A
Linear Mold Shrinkage (Parallel)	D 955	%	N/A	%	N/A
Linear Mold Shrinkage (Normal)	D 955	%	N/A	%	N/A
Mechanical Properties					
Tensile Strength	D 638	psi	7,400	MPa	51
Ultimate Elongation	D 638	%	2	%	2
Flexural Modulus	D 790	psi	800,000	MPa	5,500
Flexural Strength	D 790	psi	20,300	MPa	140
Notched Izod Impact	D 256	ft.lbs./in	0.50	J/m	25
Thermal Properties					
Melting Temperature	D 789	°F	428	°C	220
Heat Deflection Temperature (264 psi)	D 648	°F	311	°C	155
<small>All test specimens tested in "dry" state – less than 0.3% moisture. Izod Impact – ½" x ¼" bars. All tensile properties obtained at a testing speed of 2 in./min.</small>					
<small>The information contained herein is based upon data believed to be thoroughly reliable. However, due to the many uses to which this material is put, and the different equipment and techniques used, we cannot guarantee results in specific instances. Nor should any statement herein be construed as a recommendation to use our products in the infringement of a patent.</small>					