Product Data Sheet

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	
	ASTM	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	º F	311	º C	155

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.