

NYCOA 512

Nucleated, NSF Approved Nylon 6 Resin.

NYCOA 512 is a fast cycling nucleated and lubricated Nylon 6 used for injection molding applications. This material features outstanding processability, chemical resistance, and an excellent balance of mechanical properties.

NYCOA 512 is recognized by Underwriters Laboratories to standard UL 94-V-2 for thickness as low as 0.7 mm. It is also listed by the National Sanitation Foundation (NSF) under standard 61 for use in products that come into contact with food or potable water.

Typical applications include plumbing fittings and housings, thin wall molding, toys and hardware items.

Property	Method	English		SI	
		Unit	Value	Unit	Value
Physical Properties					
Specific gravity	D 792	-	1.13	-	1.13
Water Absorption, 24 hr	D 570	%	1.7	%	1.7
Linear Mold Shrinkage (Parallel)	D 955	%	1.2	%	1.2
Linear Mold Shrinkage (Normal)	D 955	%	1.4	%	1.4
Mechanical Properties					
Hardness, Rockwell (R Scale)	D 785	-	120	-	120
Tensile Strength	D 638	psi	13,050	MPa	90
Ultimate Elongation	D 638	%	40	%	40
Flexural Modulus	D 790	psi	406,000	MPa	2,800
Flexural Strength	D 790	psi	15,950	MPa	110
Notched Izod Impact	D 256	ft.lbs./in.	0.85	J/m	45.4
Thermal Properties					
Melting Temperature	D 789	°F	430	°C	221
Heat Deflection Temp, 66 psi (0.45 MPa)	D 648	°F	375	°C	191
Heat Deflection Temp, 264 psi (1.82 MPa)	D 648	°F	155	°C	68
<small>All test specimens tested in "dry" state – less than 0.3% moisture. Izod Impact – 1/2" x 1/4" bars. All tensile properties obtained at a testing speed of 50 mm./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>					