

NYCOA 4112 FR

12% Glass Fiber Reinforced, Flame Retardant High Viscosity Nylon 6 Resin.

NYCOA 4112 FR is a high viscosity resin particularly suitable for extrusion processing, thermoforming and blow molding. Its melt viscosity and strength provide ease of processing for tubing, profile, and blow molded articles.

This material is specifically engineered for applications requiring high stiffness, toughness, dimensional stability, and a greater service life than standard grades of glass reinforced Nylon 6.

NYCOA 4112 FR is available in UV stable, custom colors, and impact modified grades. It also has excellent chemical resistance to greases, oils, and other hydrocarbons.

Suggested applications include thermoformed under the hood automotive components and blow molded chemical storage reservoirs.

Property	Method	English		SI	
		Unit	Value	Unit	Value
Physical Properties					
Specific Gravity	D 792	-	1.32	-	1.32
Water Absorption, 24 hr	D 570	%	1.0	%	1.0
Linear Mold Shrinkage (Parallel)	D 955	%	0.4	%	0.4
Linear Mold Shrinkage (Normal)	D 955	%	0.6	%	0.6
Mechanical Properties					
Hardness, Rockwell (R Scale)	D 785	-	120	-	120
Tensile Strength	D 638	psi	10,900	MPa	75
Ultimate Elongation	D 638	%	15	%	15
Flexural Modulus	D 790	psi	440,000	MPa	3,035
Flexural Strength	D 790	psi	12,500	MPa	86
Notched Izod Impact	D 256	ft.lbs./in	2.5	J/m	125
Thermal Properties					
Melting Temperature	D 789	°F	428	°C	220
Heat Deflection Temp, 66 psi (0.45 MPa)	D 648	°F	424	°C	218
Heat Deflection Temp, 264 psi (1.82 MPa)	D 648	°F	399	°C	204

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.

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.