



PARTNER HIGHLIGHT

Nylon Corporation of America, Inc. (NYCOA) is a leading manufacturer of specialty engineered nylon resins. NYCOA has established itself as a leading supplier of specialty high-performance polyamide materials. In addition to an extensive line standard nylon polymer and copolymer base resins, NYCOA manufactures a wide range of engineered compounds including impact modified, plasticized, glass fiber/mineral/ fiber-reinforced, flame-retardant materials and formulations incorporating sustainable components. We are We are an ISO 9001:2015 certified company, and all of our specialty products are made in the USA.



**Nylon Corporation of America
Manchester, NH**

Nylon 6 (NYCOSIX), Nylon 66 (NYCO66)

Filled Nylon (NYCOFILL)

GF Nylon, NYCOFILL engineered filled nylons include exotic additives, including carbon fiber and graphene. Further, we can compound custom NYCOFILL nylon materials to include heat stabilization, lubricant or mold release, color concentrates, and more.

6.10 & 6.12 Nylon (NXTAmid® T)

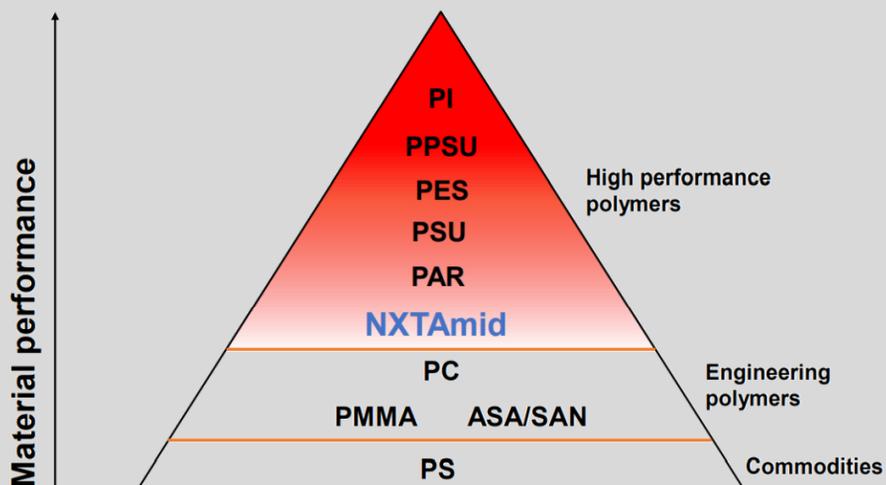
Polyamide 610 & Polyamide 612 Specialty Long Chain Nylons in the NXTAmid family

NXTAmid 2610 NXTAmid 2612

Long-Chain Nylon (NXTAmid® L)

Innovative Specialty Polyamides - Substitute for Nylon 12

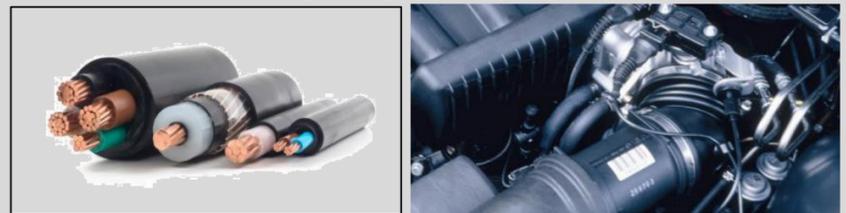
NXTAmid L.3 NXTAmid L.3 P40
NXTAmid L.4 NXTAmid L.4 P40
NXTAmid L.5 NXTAmid L.5 P40



Impact-Modified and Super-Tough (NYCOTUFF)

Copolymers (NYCOADAPT)

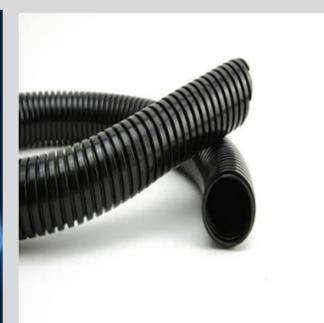
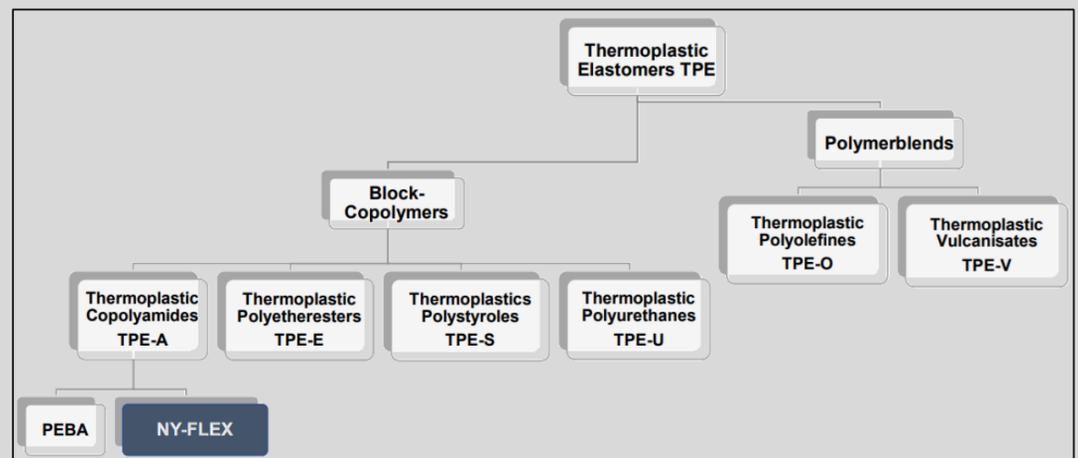
nylon 6 production from our own scale polymerization through value-added compounding, NYCOA has developed the NYCOADAPT family of specialty nylon copolymers



Measurable benefits ▪ Aliphatic and Aromatic ▪ High melt strength ▪ Wide range of processing temp. ▪ Impact modified 'super-tough' ▪ High lubricity

NYCOA's NY-FLEX

NYCOA's NY-FLEX elastomeric line of engineered polyamides includes a variety of chemistries, including random copolymer alloys and polyether block copolymers (PEBA). NY-FLEX grades provide superior flexibility, low material weight, and high-impact toughness in rubber replacement applications.



NYCOA-NXTAmid[®] Properties



Property	STD	Unit	Nycoa 436 (PA6)**	Nycoa 2062 (PA6/66)**	NXTAmid L.3	NXTAmid L.5	NXTAmid 2610	NXTAmid 2612	PA12
Melt Point	D789	C	221	200	205	181	220	218	178
E-Modulus ^(*)	ISO 527	MPa	2600	2400	1400	500	2500	2000	1400
Tensile strength at break ^(*)	ISO 527	MPa	85	70	35	20	62	60	45
Tensile elongation at break ^(*)	ISO 527	%	50	200	140	>200	100	150	120
Notched IZOD	D256	kJ/m ²	1	1	11	>20	1	1	7
HDT/A	ISO 75	°C	185	165	135	135	155	148	125
Water absorb. @ 23°C 50 % rel. humidity sat.	ISO 62	%	2.7	3.0	0.4	0.4	1.4	1.3	0.7
Density (SG)	ISO 1183	%	1.13	1.13	1.02	1.01	1.06	1.06	1.01
Shrinkage longitudinal	ISO 294	%	0.8	0.8	0.8	0.8	0.8	0.8	0.8



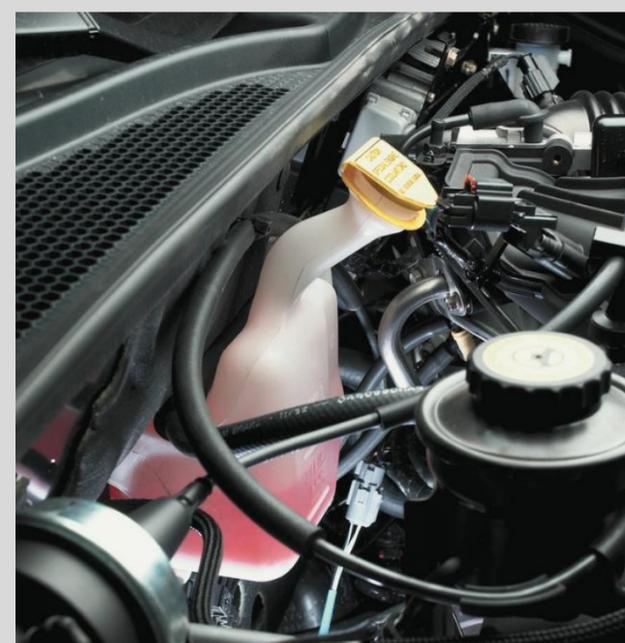
NYCOA-NXTAmid[®] L&T vs standard PA12



Properties	Unit	NXTAmid .3	NXTAmid .4	NXTAmid .5	PA610	PA612	PA12
Melting point	Deg C	205	190	181	220	215	178
Water absorption (50% RH)	%	<0.5	<0.5	<0.5	1.4	1.3	<1.0
E-modulus (dry)	MPa	1378	985	490	2500	2200	1400
Tensile @Break (dry)	MPa	35	36	36	62	58	45
Elongation @break (dry)	%	>200	>200	>200	100	150	>50
Notched impact, -30 deg C (dry)	kJ/m ²	11	15	>20	4.5	4	7

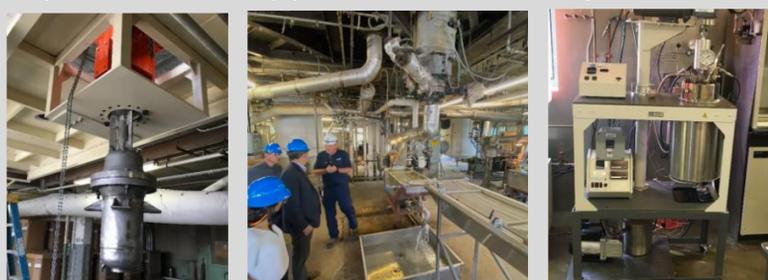
NYCOA-NXTAmid[®] Chemical Resistance

Reagent	Temp °C	Time (hr.)	Product			
			NXTAmid [®] L.3	NXTAmid [®] L.5	NXTAmid [®] T 2612	PA12 Std.
Methanol	23	168	(+)	(-)	(+)	(+)
10% NaCl	23	168	(++)	(++)	(++)	(++)
50% ZnCl	23	168	θ	θ	θ	θ
Diesel	35	24	(-)	(++)	(++)	(++)
Ethanol	23	168	(+)	(+)	(++)	(++)
Antifreeze - Ethylene Glycol	23	168	(++)	(++)	(++)	(++)
Toluene	23	168	(++)	(+)	(++)	(++)
DOT 3 hydraulic fluid	50	168	(++)	(++)	(++)	(++)
Acetone	23	168	(+)	(+)	(++)	(++)
DOT 3 hydraulic fluid	23	168	(++)	θ	θ	(++)
10% Sulfuric acid	23	168	(++)	(++)	(++)	(++)
10% Caustic soda (2.5M/2.5mol/L)	23	168	(++)	(++)	(++)	(++)



(++) Minor or no changes (+) Moderate changes (-) Significant changes θ Test in progress

A comprehensive support in the development of new applications



GENERAL POLYMERS
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GP-Materials.com

800-920-8033

For More Information:

General Polymers
Thermoplastic Materials
6841 North Rochester Rd.
STE 1A
Rochester Hills, MI 48306
Local: 248-812-1858
info@gp-materials.com