



Nylon Pneumatic Tubing



NITRA nylon 12 tubing is made from the highest quality, 100% virgin raw materials and has a hardness specification of Shore D 70. Nylon tubing is recognized as an industry standard for applications which require higher working pressures and better heat/chemical resistance than

polyurethane. NITRA nylon 12 tubing is strong, lightweight, and has a very low moisture absorption rate so it will remain flexible with a longer life than other nylons. NITRA nylon 12 is ideal for use with NITRA push-to-connect fittings.

Features

- Inch and metric sizes available
- Five colors - black, blue, natural, red and yellow
- 100 foot and 500 foot package sizes
- Shore D 70 hardness
- High working pressure and temperature/chemical resistance
- Made in USA

Nylon 5/32 in. (4 mm) Tubing Specifications								
Outside Diameter (in.)		0.156	Working Pressure (psi) @ 70°F		350	Temp. Range		-60°F to +200°F (-51°C to +93°C)
Inside Diameter (in.)		0.106	Burst Pressure (psi)		1050	Hardness		Shore D 70
Wall Thickness (in.)		0.025	Vacuum Rating		To 28" Hg	Bend Radius (in.)		0.50
100 ft. Package Length				500 ft. Reel Length				
Part Number	Price	Color	PKG WT (lbs)	Part Number	Price	Color	Package Weight (lbs)	
N532BLK100	\$17.50	Black	1.0	N532BLK500	\$88.00	Black	3.0	
N532BLU100	\$17.50	Blue		N532BLU500	\$88.00	Blue		
N532NAT100	\$17.50	Natural		N532NAT500	\$88.00	Natural		
N532RED100	\$17.50	Red		N532RED500	\$88.00	Red		
N532YEL100	\$17.50	Yellow		N532YEL500	\$88.00	Yellow		

Nylon 1/4 in. Tubing Specifications							
Outside Diameter (in.)	0.250	Working Pressure (psi) @ 70°F		290	Temp. Range	-60°F to +200°F (-51°C to +93°C)	
Inside Diameter (in.)	0.180	Burst Pressure (psi)		870	Hardness	Shore D 70	
Wall Thickness (in.)	0.035	Vacuum Rating		To 28" Hg	Bend Radius (in.)	1.25	
100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	PKG WT (lbs)	Part Number	Price	Color	Package Weight (lbs)
N14BLK100	\$28.00	Black	2.0	N14BLK500	\$145.00	Black	7.0
N14BLU100	\$28.00	Blue		N14BLU500	\$145.00	Blue	
N14NAT100	\$28.50	Natural		N14NAT500	\$145.00	Natural	
N14RED100	\$28.00	Red		N14RED500	\$145.00	Red	
N14YEL100	\$28.00	Yellow		N14YEL500	\$145.00	Yellow	

Nylon 3/8 in. Tubing Specifications								
Outside Diameter (in.)	0.375	Working Pressure (psi) @ 70°F		250	Temp. Range	-60°F to +200°F (-51°C to +93°C)		
Inside Diameter (in.)	0.275	Burst Pressure (psi)		750	Hardness	Shore D 70		
Wall Thickness (in.)	0.050	Vacuum Rating		To 28" Hg	Bend Radius (in.)	2.00		
100 ft. Package Length				500 ft. Reel Length				
Part Number	Price	Color	PKG WT (lbs)	Part Number	Price	Color	Package Weight (lbs)	
N38BLK100	\$61.00	Black	3.0	N38BLK500	\$307.00	Black	12.0	
N38BLU100	\$61.00	Blue		N38BLU500	\$307.00	Blue		
N38NAT100	\$61.00	Natural		N38NAT500	\$307.00	Natural		
N38RED100	\$61.00	Red		N38RED500	\$307.00	Red		
N38YEL100	\$61.00	Yellow						



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Nylon 1/2 in. Tubing Specifications							
Outside Diameter (in.)	0.500	Working Pressure (psi) @ 70°F		240	Temp. Range	-60°F to +200°F (-51°C to +93°C)	
Inside Diameter (in.)	0.375	Burst Pressure (psi)		720	Hardness	Shore D 70	
Wall Thickness (in.)	0.062	Vacuum Rating		To 28" Hg	Bend Radius (in.)	3.50	
100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	PKG WT (lbs)	Part Number	Price	Color	Package Weight (lbs)
N12BLK100	\$92.00	Black	4.0	N12BLK500	\$448.00	Black	19.0
N12BLU100	\$92.00	Blue		N12BLU500	\$448.00	Blue	
N12NAT100	\$92.00	Natural		N12NAT500	\$448.00	Natural	
N12RED100	\$92.00	Red		N12RED500	\$448.00	Red	
N12YEL100	\$92.00	Yellow					

Nylon 6 mm Tubing Specifications							
Outside Diameter (mm)	6.0	Working Pressure (psi) @ 70°F		340	Temp. Range	-60°F to +200°F (-51°C to +93°C)	
Inside Diameter (mm)	4.0	Burst Pressure (psi)		1020	Hardness	Shore D 70	
Wall Thickness (mm)	1.0	Vacuum Rating		To 28" Hg	Bend Radius (mm)	32.0	
100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	PKG WT (lbs)	Part Number	Price	Color	Package Weight (lbs))
N6MBLK100	\$28.00	Black	1.0	N6MBLK500	\$144.00	Black	6.0
N6MBLU100	\$28.00	Blue		N6MBLU500	\$144.00	Blue	
N6MNAT100	\$28.00	Natural		N6MNAT500	\$144.00	Natural	
N6MRED100	\$27.00	Red		N6MRED500	\$138.00	Red	
N6MYEL100	\$27.00	Yellow					

Nylon 8 mm Tubing Specifications							
Outside Diameter (mm)	8.0	Working Pressure (psi) @ 70°F		250	Temp. Range	-60°F to +200°F (-51°C to +93°C)	
Inside Diameter (mm)	6.0	Burst Pressure (psi)		750	Hardness	Shore D 70	
Wall Thickness (mm)	1.0	Vacuum Rating		To 28" Hg	Bend Radius (mm)	38.0	
100 ft. Package Length				500 ft. Reel Length			
Part Number	Price	Color	PKG WT (lbs)	Part Number	Price	Color	Package Weight (lbs)
N8MBLK100	\$41.50	Black	2.0	N8MBLK500	\$209.00	Black	9.0
N8MBLU100	\$41.50	Blue		N8MBLU500	\$209.00	Blue	
N8MNAT100	\$41.50	Natural		N8MNAT500	\$209.00	Natural	
N8MRED100	\$40.00	Red		N8MRED500	\$201.00	Red	
N8MYEL100	\$40.00	Yellow					

Nylon 10 mm Tubing Specifications					
Outside Diameter (mm)	10.0	Working Pressure (psi) @ 70°F		225	Temp. Range -60°F to +200°F (-51°C to +93°C)
Inside Diameter (mm)	8.0	Burst Pressure (psi)		675	Hardness Shore D 70
Wall Thickness (mm)	1.0	Vacuum Rating		To 28" Hg	Bend Radius (mm) 51.0
100 ft. Package Length					
Part Number	Price	Color	PKG WT (lbs)		
N10MBLK100	\$54.00	Black	2.0		
N10MBLU100	\$54.00	Blue			
N10MNAT100	\$54.00	Natural			
N10MRED100	\$54.00	Red			
N10MYEL100	\$54.00	Yellow			



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Nylon 12 mm Tubing Specifications					
Outside Diameter (mm)	12.0	Working Pressure (psi) @ 70°F	200	Temp. Range	-60°F to +200°F (-51°C to +93°C)
Inside Diameter (mm)	10.0	Burst Pressure (psi)	600	Hardness	Shore D 70
Wall Thickness (mm)	1.0	Vacuum Rating	To 28" Hg	Bend Radius (mm)	63.5
100 ft. Package Length					
Part Number	Price	Color	PKG WT (lbs)		
N12MBLK100	\$89.00	Black	4.0		
N12MBLU100	\$89.00	Blue			
N12MNAT100	\$94.00	Natural			

NITRA Pneumatic Tubing Accessories

Pneumatic Tubing Cutter				
<i>Part Number</i>	<i>Description</i>	<i>Pcs/Pkg</i>	<i>Package Weight (lbs)</i>	<i>Price</i>
<u>TC-12</u>	NITRA pneumatic tubing cutter for use with 1/8 to 1/2 inch and 4 to 12 mm outside diameter flexible plastic tubing.	1	0.1	\$5.75
<u>TC-20</u>	NITRA pneumatic heavy duty tubing cutter for use with polyurethane, nylon and other flexible tubing up to 2 inch [50mm] outside diameter.	1	0.2	\$12.00



[TC-12](#)



[TC-20](#)



Tubing Working Pressure Ratings

Nylon Tubing Working Pressure Ratings (psi)				
Size O.D.	70°F (21°C)	100°F (37.8°C)	125°F (51.7°C)	150°F (65.6°C)
1/8"	420	168	133	125
5/32" (4 mm)	350	200	169	160
1/4"	290	183	160	140
5/16" (8 mm)	250	183	156	135
3/8"	250	165	148	128
1/2"	240	145	133	125
6 mm	340	190	160	140
10 mm	225	150	130	115
12 mm	200	140	130	120
14 mm	175	100	85	70

Polyurethane Tubing Working Pressure Ratings (psi)		
Size O.D.	75°F (23.9°C)	150°F (65.6°C)
1/8" (0.125)	240	100
5/32" (0.156)	200	85
3/16" (0.187)	150	90
1/4" (0.250)	180	70
5/16" (0.3125)	175	75
3/8" (0.375)	150	70
1/2" (0.500)	150	70
9/16" (0.5625)	140	60
5/8" (0.625)	150	70
3/4" (0.750)	140	70
4 mm	200	85
6 mm	180	65
8 mm	175	75
10 mm	150	70
12 mm	150	60
16 mm	150	70



Pneumatic Fitting Instructions and Caution Information

Assembly Instructions



Prepare the **NITRA** tubing for cutting and make sure to have the proper tubing cutters like the **NITRA** TC-12 or TC-20.

(If cutting bonded tubing, carefully split the tubes with a knife and then pull apart as needed.)

Cut the **NITRA** tubing at a right angle with the axis using a standard tube cutter. After cutting the tubing, make sure to check the cut end for an even cut with no debris.

Insertion of the **NITRA** tubing into fittings

- Make sure the tube is inserted fully into the fitting.
- Pull the tube gently to make sure it does not release.
- If the tube end is damaged or deformed, leakage or unexpected tube release may occur. Make sure to check tubing end thoroughly.

Removing the **NITRA** tubing from fittings

- Make sure the pressure in the tube is zero before releasing the tube from the fittings.
- To release the tubing, press the release ring at the end of the fitting and pull the tube with one hand.
- Inspect the released tube end and make a clean cut if it is damaged or deformed.

Common Precautions for Tubing and Fitting Products

Warnings:

- Do not use fittings with media other than air.
- Avoid installing with tubing under tension or with excessive bends.
- Do not use the product where weld spatters occur as fire may occur.
- Product damage or air leakage may occur at places where there is excessive rotation or vibration of the fittings.
- Use caution in water as the product may be damaged by surge pressure.
- Do not use the product where it is directly exposed to fluids such as cutting oil, lubricating oil, and coolant oil.

Cautions:

- Assemble the tubing only after cleaning away impurities such as dust and excess debris.
- Fitting products are recommended for air systems only. Avoid using for other purposes.
- When using tubing other than **NITRA** brand with **NITRA** fittings, be sure the tubing OD conforms to the tolerances in Table 1 below.

Table 1 - Tolerance of the Outer Diameter of the Tube

Tube Specifications	ø5/32 [ø4]	ø1/4 [ø6]	ø5/16 [ø8]	ø3/8 [ø10]	ø1/2 [ø12]
Permissible tolerance	+ 0.005 [+/- 0.13]				

Pneumatic Tubing Cutter

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