



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		Black	1.0	N532BLK500		Black	3.0
N532BLU100		Blue		N532BLU500		Blue	
N532NAT100		Natural		N532NAT500		Natural	
N532RED100		Red		N532RED500		Red	
N532YEL100		Yellow		N532YEL500		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		Black	2.0	N14BLK500		Black	7.0
N14BLU100		Blue		N14BLU500		Blue	
N14NAT100		Natural		N14NAT500		Natural	
N14RED100		Red		N14RED500		Red	
N14YEL100		Yellow		N14YEL500		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		Black	3.0	N38BLK500		Black	12.0
N38BLU100		Blue		N38BLU500		Blue	
N38NAT100		Natural		N38NAT500		Natural	
N38RED100		Red		N38RED500		Red	
N38YEL100		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		Black	4.0	N12BLK500		Black	19.0
N12BLU100		Blue		N12BLU500		Blue	
N12NAT100		Natural		N12NAT500		Natural	
N12RED100		Red		N12RED500		Red	
N12YEL100		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		Black	1.0	N6MBLK500		Black	6.0
N6MBLU100		Blue		N6MBLU500		Blue	
N6MNAT100		Natural		N6MNAT500		Natural	
N6MRED100		Red		N6MRED500		Red	
N6MYEL100		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		Black	2.0	N8MBLK500		Black	9.0
N8MBLU100		Blue		N8MBLU500		Blue	
N8MNAT100		Natural		N8MNAT500		Natural	
N8MRED100		Red		N8MRED500		Red	
N8MYEL100		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				500 ft. Reel Length			
Part Number	Price	Color	PKG WT (lbs)				
N10MBLK100		Black	2.0				
N10MBLU100		Blue					
N10MNAT100		Natural					
N10MRED100		Red					
N10MYEL100		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		Black	4.0		
N12MBLU100		Blue			
N12MNAT100		Natural			

NITRA Pneumatic Tubing Accessories

Pneumatic Tubing Cutter				
Part Number	Description	Pcs/Pkg	Package Weight (lbs)	Price
TC-12	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	
TC-20	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	



TC-12



TC-20



Tubing Working Pressure Ratings

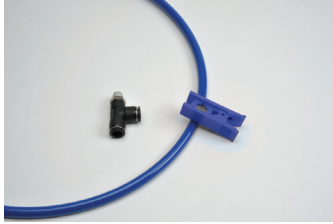
Nylon Tubing Working Pressure Ratings (psi)				
Size O.D.	70°F (21°C)	100°F (37.8°C)	125°F (51.7°C)	150°F (65.6°C)
1/8"	420	168	133	125
5/32" (4 mm)	350	200	169	160
1/4"	290	183	160	140
5/16" (8 mm)	250	183	156	135
3/8"	250	165	148	128
1/2"	240	145	133	125
6 mm	340	190	160	140
10 mm	225	150	130	115
12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

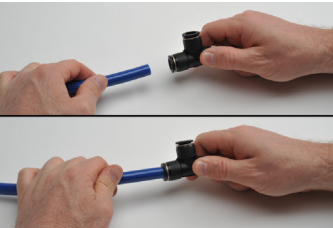


Prepare the **NITRA** tubing for cutting and make sure to have the proper tubing cutters like the **NITRA** TC-12 or TC-20.

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

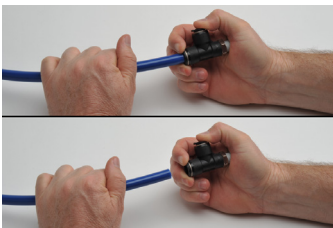


Cut the **NITRA** tubing at a right angle with the axis using a standard tube cutter. After cutting the tubing, make sure to check the cut end for an even cut with no debris.



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]				

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TC-12



TC-20