



# 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)
<a href="#">N532BLK100</a>	\$14.00	Black	1.0	<a href="#">N532BLK500</a>	\$66.00	Black	3.0
<a href="#">N532BLU100</a>	\$14.00	Blue		<a href="#">N532BLU500</a>	\$66.00	Blue	
<a href="#">N532NAT100</a>	\$14.00	Natural		<a href="#">N532NAT500</a>	\$66.00	Natural	
<a href="#">N532RED100</a>	\$14.00	Red		<a href="#">N532RED500</a>	\$66.00	Red	
<a href="#">N532YEL100</a>	\$14.00	Yellow		<a href="#">N532YEL500</a>	\$66.00	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)
<a href="#">N14BLK100</a>	\$22.50	Black	2.0	<a href="#">N14BLK500</a>	\$111.00	Black	7.0
<a href="#">N14BLU100</a>	\$22.50	Blue		<a href="#">N14BLU500</a>	\$111.00	Blue	
<a href="#">N14NAT100</a>	\$23.00	Natural		<a href="#">N14NAT500</a>	\$111.00	Natural	
<a href="#">N14RED100</a>	\$22.50	Red		<a href="#">N14RED500</a>	\$111.00	Red	
<a href="#">N14YEL100</a>	\$22.50	Yellow		<a href="#">N14YEL500</a>	\$111.00	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)
<a href="#">N38BLK100</a>	\$49.00	Black	3.0	<a href="#">N38BLK500</a>	\$239.00	Black	12.0
<a href="#">N38BLU100</a>	\$49.00	Blue		<a href="#">N38BLU500</a>	\$239.00	Blue	
<a href="#">N38NAT100</a>	\$49.00	Natural		<a href="#">N38NAT500</a>	\$239.00	Natural	
<a href="#">N38RED100</a>	\$49.00	Red		<a href="#">N38RED500</a>	\$239.00	Red	
<a href="#">N38YEL100</a>	\$49.00	Yellow					



# Nylon Pneumatic Tubing

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)
<a href="#">N12BLK100</a>	\$83.00	Black	4.0	<a href="#">N12BLK500</a>	\$404.00	Black	19.0
<a href="#">N12BLU100</a>	\$83.00	Blue		<a href="#">N12BLU500</a>	\$404.00	Blue	
<a href="#">N12NAT100</a>	\$83.00	Natural		<a href="#">N12NAT500</a>	\$404.00	Natural	
<a href="#">N12RED100</a>	\$83.00	Red		<a href="#">N12RED500</a>	\$404.00	Red	
<a href="#">N12YEL100</a>	\$83.00	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)
<a href="#">N6MBLK100</a>	\$22.50	Black	1.0	<a href="#">N6MBLK500</a>	\$110.00	Black	6.0
<a href="#">N6MBLU100</a>	\$22.50	Blue		<a href="#">N6MBLU500</a>	\$110.00	Blue	
<a href="#">N6MNAT100</a>	\$22.50	Natural		<a href="#">N6MNAT500</a>	\$110.00	Natural	
<a href="#">N6MRED100</a>	\$22.50	Red		<a href="#">N6MRED500</a>	\$110.00	Red	
<a href="#">N6MYEL100</a>	\$22.50	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)
<a href="#">N8MBLK100</a>	\$35.50	Black	2.0	<a href="#">N8MBLK500</a>	\$176.00	Black	9.0
<a href="#">N8MBLU100</a>	\$35.50	Blue		<a href="#">N8MBLU500</a>	\$176.00	Blue	
<a href="#">N8MNAT100</a>	\$35.50	Natural		<a href="#">N8MNAT500</a>	\$176.00	Natural	
<a href="#">N8MRED100</a>	\$35.50	Red		<a href="#">N8MRED500</a>	\$176.00	Red	
<a href="#">N8MYEL100</a>	\$35.50	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)				
<a href="#">N10MBLK100</a>	\$50.00	Black	2.0				
<a href="#">N10MBLU100</a>	\$50.00	Blue					
<a href="#">N10MNAT100</a>	\$50.00	Natural					
<a href="#">N10MRED100</a>	\$50.00	Red					
<a href="#">N10MYEL100</a>	\$50.00	Yellow					



# Nylon Pneumatic Tubing

Nylon 12 mm Tubing Specifications					
<b>Outside Diameter (mm)</b>	12.0	<b>Working Pressure (psi) @ 70°F</b>	200	<b>Temp. Range</b>	-60°F to +200°F (-51°C to +93°C)
<b>Inside Diameter (mm)</b>	10.0	<b>Burst Pressure (psi)</b>	600	<b>Hardness</b>	Shore D 70
<b>Wall Thickness (mm)</b>	1.0	<b>Vacuum Rating</b>	To 28" Hg	<b>Bend Radius (mm)</b>	63.5
100 ft. Package Length					
<b>Part Number</b>	<b>Price</b>	<b>Color</b>	<b>PKG WT (lbs)</b>		
<b><u>N12MBLK100</u></b>	\$81.00	Black	4.0		
<b><u>N12MBLU100</u></b>	\$81.00	Blue			
<b><u>N12MNAT100</u></b>	\$81.00	Natural			

## NITRA Pneumatic Tubing Accessories

Pneumatic Tubing Cutter				
Part Number	Description	Pcs/Pkg	Package Weight (lbs)	Price
<b><u>TC-12</u></b>	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	\$5.50
<b><u>TC-20</u></b>	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	\$11.00



**TC-12**



**TC-20**



# Tubing Working Pressure Ratings

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

<b>Polyurethane Tubing Working Pressure Ratings (psi)</b>		
<b>Size O.D.</b>	<b>75°F (23.9°C)</b>	<b>150°F (65.6°C)</b>
<b>1/8" (0.125)</b>	240	100
<b>5/32" (0.156)</b>	200	85
<b>3/16" (0.187)</b>	150	90
<b>1/4" (0.250)</b>	180	70
<b>5/16" (0.3125)</b>	175	75
<b>3/8" (0.375)</b>	150	70
<b>1/2" (0.500)</b>	150	70
<b>9/16" (0.5625)</b>	140	60
<b>5/8" (0.625)</b>	150	70
<b>3/4" (0.750)</b>	140	70
<b>4 mm</b>	200	85
<b>6 mm</b>	180	65
<b>8 mm</b>	175	75
<b>10 mm</b>	150	70
<b>12 mm</b>	150	60
<b>16 mm</b>	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					
<b>Tube Specifications</b>	ø5/32 [ø4]	ø1/4 [ø6]	ø5/16 [ø8]	ø3/8 [ø10]	ø1/2 [ø12]
<b>Permissible tolerance</b>	+ 0.005 [+/- 0.13]				

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TC-12



TC-20