

NITRA™ Polyurethane (PUR) tubing is made from the highest quality, 100% virgin raw materials available and has a hardness specification of Shore A 98. It is ether based to provide excellent hydrolysis, oil and cold resistance. NITRA Polyurethane tubing is strong, flexible, and offers superior kink resistance compared to other tubing. With its extremely tight outside diameter tolerance, NITRA Polyurethane tubing is ideal for use with NITRA push-to-connect fittings.

## Features

- Inch and metric sizes available
- Three colors - black, blue and clear
- 100 foot and 500 foot package sizes
- Shore A 98 hardness
- Strong, flexible and kink resistant
- Made in USA

Polyurethane 5/32 in. (4mm) Tubing Specifications					
<b>Outside Diameter (in.)</b>	0.156	<b>Working Pressure (psi) @ 70° F</b>	200	<b>Temp. Range</b>	-40°F to +160°F (-40°C to +71°C)
<b>Inside Diameter (in.)</b>	0.093	<b>Burst Pressure (psi)</b>	600	<b>Hardness</b>	Shore A 98
<b>Wall Thickness (in.)</b>	0.031	<b>Vacuum Rating</b>	To 28" Hg	<b>Bend Radius (in.)</b>	0.250
Part Number	Price	Size	Color	PKG/Reel Length (feet)	PKG WT (lbs)
PU532BLK100	<-->	5/32 in. (4 mm)	Black	100 ft. Package	0.70
PU532BLK500	<-->	5/32 in. (4 mm)	Black	500 ft. Reel	3.50
PU532BLU100	<-->	5/32 in. (4 mm)	Blue	100 ft. Package	0.70
PU532BLU500	<-->	5/32 in. (4 mm)	Blue	500 ft. Reel	3.50
PU532CLR100	<-->	5/32 in. (4 mm)	Clear	100 ft. Package	0.70
PU532CLR500	<-->	5/32 in. (4 mm)	Clear	500 ft. Reel	3.50

Polyurethane 1/4 in. Tubing Specifications					
<b>Outside Diameter (in.)</b>	0.250	<b>Working Pressure (psi) @ 70° F</b>	180	<b>Temp. Range</b>	-40°F to +160°F (-40°C to +71°C)
<b>Inside Diameter (in.)</b>	0.156	<b>Burst Pressure (psi)</b>	540	<b>Hardness</b>	Shore A 98
<b>Wall Thickness (in.)</b>	0.047	<b>Vacuum Rating</b>	To 28" Hg	<b>Bend Radius (in.)</b>	0.476
Part Number	Price	Size	Color	PKG/Reel Length (feet)	PKG WT (lbs)
PU14BLK100	<-->	1/4 in.	Black	100 ft. Package	1.50
PU14BLK500	<-->	1/4 in.	Black	500 ft. Reel	7.50
PU14BLU100	<-->	1/4 in.	Blue	100 ft. Package	1.50
PU14BLU500	<-->	1/4 in.	Blue	500 ft. Reel	7.50
PU14CLR100	<-->	1/4 in.	Clear	100 ft. Package	1.50
PU14CLR500	<-->	1/4 in.	Clear	500 ft. Reel	7.50

Polyurethane 3/8 in. Tubing Specifications					
<b>Outside Diameter (in.)</b>	0.375	<b>Working Pressure (psi) @ 70° F</b>	150	<b>Temp. Range</b>	-40°F to +160°F (-40°C to +71°C)
<b>Inside Diameter (in.)</b>	0.250	<b>Burst Pressure (psi)</b>	450	<b>Hardness</b>	Shore A 98
<b>Wall Thickness (in.)</b>	0.063	<b>Vacuum Rating</b>	To 28" Hg	<b>Bend Radius (in.)</b>	1.00
Part Number	Price	Size	Color	PKG/Reel Length (feet)	PKG WT (lbs)
PU38BLK100	<-->	3/8 in.	Black	100 ft. Package	3.40
PU38BLK500	<-->	3/8 in.	Black	500 ft. Reel	17.00
PU38BLU100	<-->	3/8 in.	Blue	100 ft. Package	3.40
PU38BLU500	<-->	3/8 in.	Blue	500 ft. Reel	17.00
PU38CLR100	<-->	3/8 in.	Clear	100 ft. Package	3.40
PU38CLR500	<-->	3/8 in.	Clear	500 ft. Reel	17.00

# Polyurethane Pneumatic Tubing

Polyurethane 1/2 in. Tubing Specifications					
<b>Outside Diameter (in.)</b>	0.500	<b>Working Pressure (psi) @ 70° F</b>	150	<b>Temp. Range</b>	-40°F to +160°F (-40°C to +71°C)
<b>Inside Diameter (in.)</b>	0.328	<b>Burst Pressure (psi)</b>	450	<b>Hardness</b>	Shore A 98
<b>Wall Thickness (in.)</b>	0.086	<b>Vacuum Rating</b>	To 28" Hg	<b>Bend Radius (in.)</b>	1.102
<b>Part Number</b>	<b>Price</b>	<b>Size</b>	<b>Color</b>	<b>PKG/Reel Length (feet)</b>	<b>PKG WT (lbs)</b>
PU12BLK100	<--->	1/2 in.	Black	100 ft. Package	5.10
PU12BLK500	<--->	1/2 in.	Black	500 ft. Reel	25.50
PU12BLU100	<--->	1/2 in.	Blue	100 ft. Package	5.10
PU12BLU500	<--->	1/2 in.	Blue	500 ft. Reel	25.50
PU12CLR100	<--->	1/2 in.	Clear	100 ft. Package	5.10
PU12CLR500	<--->	1/2 in.	Clear	500 ft. Reel	25.50

Polyurethane 6 mm Tubing Specifications					
<b>Outside Diameter (mm)</b>	6.0	<b>Working Pressure (psi) @ 70° F</b>	180	<b>Temp. Range</b>	-40°F to +160°F (-40°C to +71°C)
<b>Inside Diameter (mm)</b>	4.0	<b>Burst Pressure (psi)</b>	540	<b>Hardness</b>	Shore A 98
<b>Wall Thickness (mm)</b>	1.0	<b>Vacuum Rating</b>	To 28" Hg	<b>Bend Radius (mm)</b>	12
<b>Part Number</b>	<b>Price</b>	<b>Size</b>	<b>Color</b>	<b>PKG/Reel Length (feet)</b>	<b>PKG WT (lbs)</b>
PU6MBLK100	<--->	6 mm	Black	100 ft. Package	1.30
PU6MBLK500	<--->	6 mm	Black	500 ft. Reel	6.48
PU6MBLU100	<--->	6 mm	Blue	100 ft. Package	1.30
PU6MBLU500	<--->	6 mm	Blue	500 ft. Reel	6.48
PU6MCLR100	<--->	6 mm	Clear	100 ft. Package	1.30
PU6MCLR500	<--->	6 mm	Clear	500 ft. Reel	6.48

Polyurethane 8 mm Tubing Specifications					
<b>Outside Diameter (mm)</b>	8.0	<b>Working Pressure (psi) @ 70° F</b>	175	<b>Temp. Range</b>	-40°F to +160°F (-40°C to +71°C)
<b>Inside Diameter (mm)</b>	5.0	<b>Burst Pressure (psi)</b>	525	<b>Hardness</b>	Shore A 98
<b>Wall Thickness (mm)</b>	1.5	<b>Vacuum Rating</b>	To 28" Hg	<b>Bend Radius (mm)</b>	15
<b>Part Number</b>	<b>Price</b>	<b>Size</b>	<b>Color</b>	<b>PKG/Reel Length (feet)</b>	<b>PKG WT (lbs)</b>
PU8MBLK100	<--->	8 mm	Black	100 ft. Package	2.60
PU8MBLK500	<--->	8 mm	Black	500 ft. Reel	13.00
PU8MBLU100	<--->	8 mm	Blue	100 ft. Package	2.60
PU8MBLU500	<--->	8 mm	Blue	500 ft. Reel	13.00
PU8MCLR100	<--->	8 mm	Clear	100 ft. Package	2.60
PU8MCLR500	<--->	8 mm	Clear	500 ft. Reel	13.00

Polyurethane 10 mm Tubing Specifications					
<b>Outside Diameter (mm)</b>	10.0	<b>Working Pressure (psi) @ 70° F</b>	150	<b>Temp. Range</b>	-40°F to +160°F (-40°C to +71°C)
<b>Inside Diameter (mm)</b>	6.5	<b>Burst Pressure (psi)</b>	450	<b>Hardness</b>	Shore A 98
<b>Wall Thickness (mm)</b>	1.75	<b>Vacuum Rating</b>	To 28" Hg	<b>Bend Radius (mm)</b>	25
<b>Part Number</b>	<b>Price</b>	<b>Size</b>	<b>Color</b>	<b>PKG/Reel Length (feet)</b>	<b>PKG WT (lbs)</b>
PU10MBLK100	<--->	10 mm	Black	100 ft. Package	3.90
PU10MBLK500	<--->	10 mm	Black	500 ft. Reel	19.50
PU10MBLU100	<--->	10 mm	Blue	100 ft. Package	3.90
PU10MBLU500	<--->	10 mm	Blue	500 ft. Reel	19.50
PU10MCLR100	<--->	10 mm	Clear	100 ft. Package	3.90
PU10MCLR500	<--->	10 mm	Clear	500 ft. Reel	19.50

Polyurethane 12 mm Tubing Specifications					
<b>Outside Diameter (mm)</b>	12.0	<b>Working Pressure (psi) @ 70° F</b>	150	<b>Temp. Range</b>	-40°F to +160°F (-40°C to +71°C)
<b>Inside Diameter (mm)</b>	8.0	<b>Burst Pressure (psi)</b>	450	<b>Hardness</b>	Shore A 98
<b>Wall Thickness (mm)</b>	2.0	<b>Vacuum Rating</b>	To 28" Hg	<b>Bend Radius (mm)</b>	28
<b>Part Number</b>	<b>Price</b>	<b>Size</b>	<b>Color</b>	<b>PKG/Reel Length (feet)</b>	<b>PKG WT (lbs)</b>
<b>PU12MBLK100</b>	<--->	12 mm	Black	100 ft. Package	5.30
<b>PU12MBLK500</b>	<--->	12 mm	Black	500 ft. Reel	26.5
<b>PU12MBLU100</b>	<--->	12 mm	Blue	100 ft. Package	5.30
<b>PU12MBLU500</b>	<--->	12 mm	Blue	500 ft. Reel	26.5
<b>PU12MCLR100</b>	<--->	12 mm	Clear	100 ft. Package	5.30
<b>PU12MCLR500</b>	<--->	12 mm	Clear	500 ft. Reel	26.5

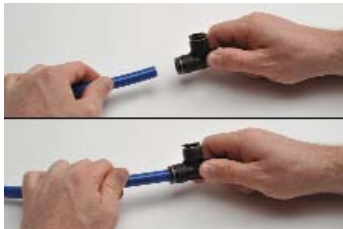
## Assembly Instructions



Prepare the NITRA™ tubing for cutting and make sure to have the proper tubing cutters.



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	+ 0.15/-0.1 [+/- 0.1]	+/- 0.1 [+/- 0.1]	+ 0.2/- 0.1 [+/- 0.1]	+/- 0.15 [+/- 0.15]	+/- 0.15 [+/- 0.15]

Note: Dimensions shown inches [mm]