

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
- Three colors - black, blue and natural
- 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. (4mm) 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
Part Number	Price	Size	Color	PKG/Reel Length (feet)	PKG WT (lbs)
N532BLK100	<--->	5/32 in. (4 mm)	Black	100 ft. Package	1.0
N532BLK500	<--->	5/32 in. (4 mm)	Black	500 ft. Reel	3.0
N532BLU100	<--->	5/32 in. (4 mm)	Blue	100 ft. Package	1.0
N532BLU500	<--->	5/32 in. (4 mm)	Blue	500 ft. Reel	3.0
N532NAT100	<--->	5/32 in. (4 mm)	Natural	100 ft. Package	1.0
N532NAT500	<--->	5/32 in. (4 mm)	Natural	500 ft. Reel	3.0

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
Part Number	Price	Size	Color	PKG/Reel Length (feet)	PKG WT (lbs)
N14BLK100	<--->	1/4 in.	Black	100 ft. Package	2.0
N14BLK500	<--->	1/4 in.	Black	500 ft. Reel	7.0
N14BLU100	<--->	1/4 in.	Blue	100 ft. Package	2.0
N14BLU500	<--->	1/4 in.	Blue	500 ft. Reel	7.0
N14NAT100	<--->	1/4 in.	Natural	100 ft. Package	2.0
N14NAT500	<--->	1/4 in.	Natural	500 ft. Reel	7.0

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
Part Number	Price	Size	Color	PKG/Reel Length (feet)	PKG WT (lbs)
N38BLK100	<--->	3/8 in.	Black	100 ft. Package	3.0
N38BLK500	<--->	3/8 in.	Black	500 ft. Reel	12.0
N38BLU100	<--->	3/8 in.	Blue	100 ft. Package	3.0
N38BLU500	<--->	3/8 in.	Blue	500 ft. Reel	12.0
N38NAT100	<--->	3/8 in.	Natural	100 ft. Package	3.0
N38NAT500	<--->	3/8 in.	Natural	500 ft. Reel	12.0

Company Info.

PLCs

Field I/O

Software

C-more & other HMI

AC Drives

AC Motors

Power Transmiss.

Steppers/ Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Current Sensors

Pressure Sensors

Temp. Sensors

Pushbuttons/ Lights

Process

Relays/ Timers

Comm.

Terminal Blocks & Wiring

Power

Circuit Protection

Enclosures

Tools

Pneumatics

Appendix

Part Index

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

Part Number	Price	Size	Color	PKG/Reel Length (feet)	PKG WT (lbs)
N12BLK100	<--->	1/2 in.	Black	100 ft. Package	4.0
N12BLK500	<--->	1/2 in.	Black	500 ft. Reel	19.0
N12BLU100	<--->	1/2 in.	Blue	100 ft. Package	4.0
N12BLU500	<--->	1/2 in.	Blue	500 ft. Reel	19.0
N12NAT100	<--->	1/2 in.	Natural	100 ft. Package	4.0
N12NAT500	<--->	1/2 in.	Natural	500 ft. Reel	19.0

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

Part Number	Price	Size	Color	PKG/Reel Length (feet)	PKG WT (lbs)
N6MBLK100	<--->	6 mm	Black	100 ft. Package	1.0
N6MBLK500	<--->	6 mm	Black	500 ft. Reel	6.0
N6MBLU100	<--->	6 mm	Blue	100 ft. Package	1.0
N6MBLU500	<--->	6 mm	Blue	500 ft. Reel	6.0
N6MNAT100	<--->	6 mm	Natural	100 ft. Package	1.0
N6MNAT500	<--->	6 mm	Natural	500 ft. Reel	6.0

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

Part Number	Price	Size	Color	PKG/Reel Length (feet)	PKG WT (lbs)
N8MBLK100	<--->	8 mm	Black	100 ft. Package	2.0
N8MBLK500	<--->	8 mm	Black	500 ft. Reel	9.0
N8MBLU100	<--->	8 mm	Blue	100 ft. Package	2.0
N8MBLU500	<--->	8 mm	Blue	500 ft. Reel	9.0
N8MNAT100	<--->	8 mm	Natural	100 ft. Package	2.0
N8MNAT500	<--->	8 mm	Natural	500 ft. Reel	9.0

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

Part Number	Price	Size	Color	PKG/Reel Length (feet)	PKG WT (lbs)
N10MBLK100	<--->	10 mm	Black	100 ft. Package	2.0
N10MBLK500	<--->	10 mm	Black	500 ft. Reel	11.0
N10MBLU100	<--->	10 mm	Blue	100 ft. Package	2.0
N10MBLU500	<--->	10 mm	Blue	500 ft. Reel	11.0
N10MNAT100	<--->	10 mm	Natural	100 ft. Package	2.0
N10MNAT500	<--->	10 mm	Natural	500 ft. Reel	11.0

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
Part Number	Price	Size	Color	PKG/Reel Length (feet)	PKG WT (lbs)
N12MBLK100	<--->	12 mm	Black	100 ft. Package	4.0
N12MBLK500	<--->	12 mm	Black	500 ft. Reel	19.0
N12MBLU100	<--->	12 mm	Blue	100 ft. Package	4.0
N12MBLU500	<--->	12 mm	Blue	500 ft. Reel	19.0
N12MNAT100	<--->	12 mm	Natural	100 ft. Package	4.0
N12MNAT500	<--->	12 mm	Natural	500 ft. Reel	19.0

NITRA Pneumatic Tubing Accessories

Pneumatic Tubing Cutter				
Part Number	Description	Pcs/Pkg	Wt (lb)	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-12

Pneumatic Fitting Instructions and Caution Information

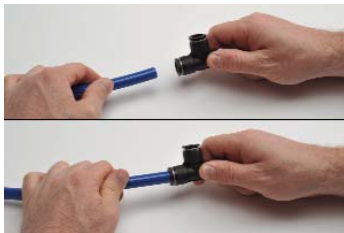
Assembly Instructions:



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



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]

Pneumatic Tubing Cutter		
Part No.	Description	Price
TC-12	Tubing cutter, 1/8-1/2 in, 4-12mm	<--->