



Nylon 12 Tubing

N12 series

Nylon 12 (PA12) is polyamide tubing for general industrial use, suitable for industrial pneumatic and fluid transfer systems.

Nylon 12 has low moisture absorption and good dimensional stability, with material properties less affected by changes in ambient humidity. It also provides good chemical resistance, impact resistance at low temperatures, and abrasion resistance.

Selected sizes are available in multiple colors for circuit identification.

Key Features

- Low moisture absorption
- Dimensional stability
- Chemical resistance
- Impact resistance at low temperatures
- Abrasion resistance
- Multiple color options

Applications

- General industrial pneumatic systems
- Pneumatic piping for automation equipment and industrial machinery
- Fluid transfer lines for industrial machinery and control systems
- Industrial piping in environments with significant humidity variations

Regulatory Compliance

- RoHS compliant
- REACH compliant

Technical Specifications

Material	Polyamide 12 (PA12)
Operating Temp. Range	-50°C to 93°C (-60°F to 200°F)
Safety Factor	3 : 1

Tube Tolerance

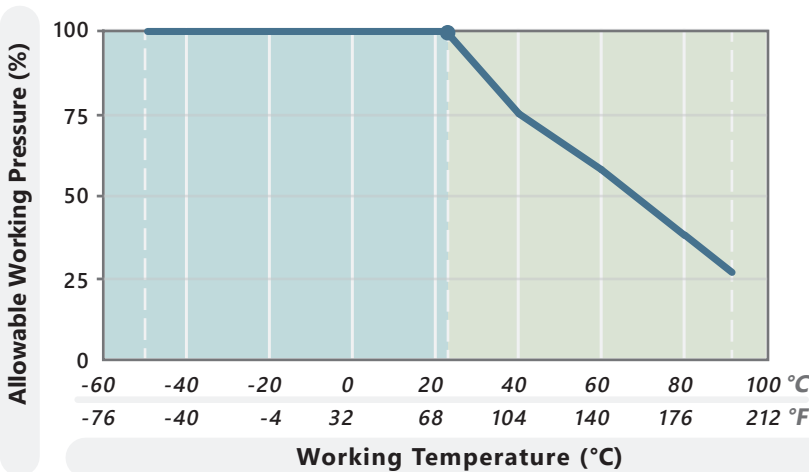
Metric Sizes

Tube O.D.	O.D. Tolerance
4 – 10 mm	±0.10 mm
12 – 20 mm	±0.004 mm

Imperial Sizes

Tube O.D.	O.D. Tolerance
1/8" – 3/8"	±0.15"
1/2" – 5/8"	±0.006"

Maximum Working Pressure Derating Curve



● Rating Reference Point
(23°C / 73°F)

■ Base Rating Zone

■ Thermal Derating Zone



Specifications

- Metric Sizes - mm

Model Number	Tube OD	Tube ID	Wall Thickness	Weight	Max. Working Pressure 23°C (73°F)	Min. Burst Pressure 23°C (73°F)	Min. Bend Radius	Packing Length	Color					
+Color	mm	mm	mm	g/m	bar	bar	mm	m	NA	BK	BU	G	R	Y
N12402025M_	4	2	1.00	9.7	44	132	15	25	☐	☒	☒	☒	☒	☒
N12402050M_								50						
N124020100M_								100						
N12402525M_	4	2.5	0.75	7.8	31	93	20	25	☐	☒	☒	☒	☒	☒
N12402550M_								50						
N124025100M_								100						
N12402725M_	4	2.7	0.65	7.0	26	78	25	25	☐	☒	☒	☒	☒	☒
N12402750M_								50						
N124027100M_								100						
N12503025M_	5	3	1.00	12.9	33	99	30	25	☐	☒	☒	☒	☒	☒
N12503050M_								50						
N125030100M_								100						
N12604025M_	6	4	1.00	16.1	27	81	35	25	☐	☒	☒	☒	☒	☒
N12604050M_								50						
N126040100M_								100						
N12806025M_	8	6	1.00	22.5	19	57	40	25	☐	☒	☒	☒	☒	☒
N12806050M_								50						
N128060100M_								100						
N12107025M_	10	7	1.50	41.0	24	72	45	25	☐	☒	☒	☒	☒	☒
N12107050M_								50						
N121070100M_								100						
N12107525M_	10	7.5	1.25	35.2	19	57	50	25	☐	☒	☒	☒	☒	☒
N12107550M_								50						
N121075100M_								100						
N12108025M_	10	8	1.00	29.0	15	45	60	25	☐	☒	☒	☒	☒	☒
N12108050M_								50						
N121080100M_								100						
N12129025M_	12	9	1.50	50.7	19	57	70	25	☐	☒	☒	☒	☒	☒
N12129050M_								50						
N121290100M_								100						
N12121025M_	12	10	1.00	35.4	12	36	85	25	☐	☒	☒	☒	☒	☒
N12121050M_								50						
N121210100M_								100						
N12141025M_	14	10	2.00	77.2	22	66	90	25	☐	☒	☒	☒	☒	☒
N12141050M_								50						
N121410100M_								100						
N12141125M_	14	11	1.50	60.3	16	48	88	25	☐	☒	☒	☒	☒	☒
N12141150M_								50						
N121411100M_								100						
N12141225M_	14	12	1.00	41.8	10	30	85	25	☐	☒	☒	☒	☒	☒
N12141250M_								50						
N121412100M_								100						
N12151225M_	15	12	1.50	65.2	15	45	100	25	☐	☒	☒	☒	☒	☒
N12151250M_								50						
N121512100M_								100						
N12161225M_	16	12	2.00	90.1	19	57	150	25	☐	☒	☒	☒	☒	☒
N12161250M_								50						
N121612100M_								100						
N12181425M_	18	14	2.00	103.0	17	51	190	25	☐	☒	☒	☒	☒	☒
N12181450M_								50						
N121814100M_								100						
N12201625M_	20	16	2.00	115.9	15	45	180	25	☐	☒	☒	☒	☒	☒
N12201650M_								50						
N122016100M_								100						



Imperial Sizes - inch

Model Number	Tube OD	Tube ID	Wall Thickness	Weight	Max. Working Pressure 73°F (23°C)	Min. Burst Pressure 73°F (23°C)	Min. Bend Radius	Packing Length	Color					
+Color	inch	inch	inch	lbs/ft	psi	psi	inch	ft	NA	BK	BU	G	R	Y
N1218079100FT_	1/8	0.079	0.02	0.003	420	1680	0.375	100	☐	☒				
N1218079500FT_								500						
N12180791000FT_								1,000						
N1218093100FT_	1/8	0.093	0.02	0.002	250	1000	0.500	100	☐	☒				
N1218093500FT_								500						
N12180931000FT_								1,000						
N12532106100FT_	5/32	0.106	0.03	0.005	300	1200	0.500	100	☐	☒	☒	☒	☒	☒
N12532106500FT_								500						
N125321061000FT_								1,000						
N12316138100FT_	3/16	0.138	0.02	0.006	250	1000	0.625	100	☐	☒				
N12316138500FT_								500						
N123161381000FT_								1,000						
N1214150100FT_	1/4	0.150	0.05	0.014	500	2000	0.750	100	☐	☒				
N1214150500FT_								500						
N12141501000FT_								1,000						
N1214170100FT_	1/4	0.170	0.04	0.012	310	1240	0.875	100	☐	☒	☒	☒	☒	☒
N1214170500FT_								500						
N12141701000FT_								1,000						
N1214180100FT_	1/4	0.180	0.04	0.010	250	1000	0.875	100	☐	☒	☒	☒	☒	☒
N1214180500FT_								500						
N12141801000FT_								1,000						
N12516232100FT_	5/16	0.232	0.04	0.015	250	1000	1.125	100	☐	☒				
N12516232500FT_								500						
N125162321000FT_								1,000						
N1238250100FT_	3/8	0.250	0.06	0.027	400	1600	1.000	100	☐	☒				
N1238250500FT_								500						
N12382501000FT_								1,000						
N1238275100FT_	3/8	0.275	0.05	0.023	250	1000	1.125	100	☐	☒	☒	☒	☒	☒
N1238275500FT_								500						
N12382751000FT_								1,000						
N1212375100FT_	1/2	0.375	0.06	0.038	250	1000	3.500	100	☐	☒				
N1212375500FT_								500						
N1258500100FT_	5/8	0.500	0.06	0.049	210	840	4.250	100	☐	☒				
N1258500500FT_								500						

Selected hardness levels, sizes, and colors may be available upon request. Please contact SHPI for availability.

Ordering Information

- Metric Sizes - mm

N12		40		20		25M		NA	
Material		Outside Diameter		Inside Diameter		Package Length		Color Code	
N12	Nylon PA 12	40	4 mm	20	2 mm	25M	25 Meters	NA	Natural
		50	5 mm	25	2.5 mm	50M	50 Meters	BK	Black
		60	6 mm	27	2.7 mm	100M	100 Meters	BU	Blue
		80	8 mm	30	3 mm			G	Green
		10	10 mm	40	4 mm			R	Red
		12	12 mm	60	6 mm			Y	Yellow
		14	14 mm	70	7 mm				
		15	15 mm	75	7.5 mm				
		16	16 mm	80	8 mm				
		18	18 mm	90	9 mm				
		20	20 mm	10	10 mm				
				11	11 mm				
				12	12 mm				
				14	14 mm				
				16	16 mm				

- Imperial Sizes - inch

N12		18		079		100FT		NA	
Material		Outside Diameter		Inside Diameter		Package Length		Color Code	
N12	Nylon PA 12	18	1/8"	079	0.079"	100FT	100 Feet	NA	Natural
		532	5/32"	093	0.093"	500FT	500 Feet	BK	Black
		316	3/16"	106	0.106"	1000FT	1000 Feet	BU	Blue
		14	1/4"	138	0.138"			G	Green
		516	5/16"	150	0.150"			R	Red
		38	3/8"	170	0.170"			Y	Yellow
		12	1/2"	180	0.180"				
		58	5/8"	232	0.232"				
				250	0.250"				
				275	0.275"				
				375	0.375"				
				500	0.500"				

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