



#4
Nylon 12 ,
Nylon 6
Tube

Tried. Tested. And Wanted.

SHPI Nylon 12 tubing utilizes a high strength flexible grade compound. (The property of Nylon 12 is the same as Nylon 11) This allows for a thinner tubing wall, greater flexibility and smaller bend radius, while offering working pressures ranging from 165PSI to 375PSI. This heat and light stabilized compound is dimensionally stable. Its physical properties make it one of the tougher thermoplastic tubing available on the market today. Available in Inch and Metric sizes in various color and package options

PRODUCT DESCRIPTION

TEMPERATURE RANGE

-40°C ~ 80°C / -40°F ~ 176°F

WORKING PRESSURE

4 to 1 safety factor

NOTES ON NYLON TUBING

Nylon, also known as polyamide, was developed nearly 50 years ago as the first engineered thermoplastic. Nylon compounds are often classified by the number of carbon molecules found in the groups of monomers that form the compound. Those carbon molecules are signified as Nylon 6, nylon 11 or Nylon 12, or even combinations such as Nylon 6/6 or Nylon 6/12.

Many Nylon compounds are hygroscopic, meaning they can absorb moisture. Some lesser cost compounds exhibit absorption rates as high as 9.5%, as measured by ASTM D-570 tests. This much absorption can cause dimensional and strength changes in plastic tubing, and premature failure.

(The market offers tubing manufactured with Polyamide (PA, also commonly called Nylon) in different types: Nylon 6, 11 and 12. Nylon 6 has an excellent set of properties as compared to other materials and is also very competitively priced in comparison to other of nylon. Exceptional value and performance in many products are thus making Nylon 6 the material of choice for many consumer goods and industrial applications. Nylon 11 and 12 are very similar products, and they show almost identical performances, although they originate from different base materials: Castor Oil for Nylon 11 and Oil for Nylon 12.

ORDER & PACKAGING

PLACING AN ORDER OR REQUEST

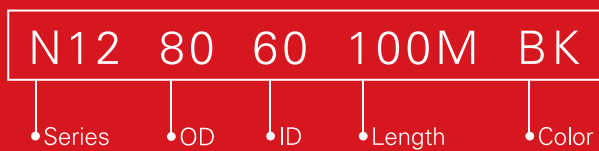
Specifying Standard Items:


Please specify the following:

1. Series(Item) Number
2. OD. Size
3. ID. Size
4. Tube length (Please specify Metric/Imperial)
5. Color

Example of a request:

100M of 8 x 6 black Nylon 12 tubing



| PACKAGING | TYPE | FEATURE |
|--|---|---|
|  | <p>Paper Reel 100M or 200M 0 splices allowed</p> | <p>An easy to use standard package.</p> |
|  | <p>Box 100M or 200M 0 splices allowed</p> | <p>A standard package that keeps dust away from the product.</p> |
|  | <p>Plastic Bag 0 splices allowed</p> | <p>Smaller size package that keeps the dust away from the product.</p> |
|  | <p>Film Wrapped 0 splices allowed</p> | <p>A package for special lengths and large-scaled O.D that can be recycled.</p> |

** Other sizes, colors, printing, length and package option may be available*

SHPI strives to provide continuous lengths of tubing. However, manufacturing practices and stringent quality control processes will dictate the need for occasional splices.

Reels of tubing can be specially ordered without splices.

(Prior notice must be given when placing order)



NYLON 12 TUBE

SHPI 'N12' is manufactured from heat and light stabilized

Type 12 nylon to precise tolerances.

(Nylon 12 property is the same as Nylon 11)

Nylon 12 has high resistance to moisture absorption and a wide range of chemicals. It is suitable for use in air brake, fuel and lube applications, notwithstanding instrumentation and secondary air systems

Series

N12 Polyamide 12

Tubing Manufactured to DIN 73378,

BS5409 PRT 1 standards

Working Pressure

4 to 1 safety factor

Working Pressure at elevated temperature

please refer page 98

Temperature Range

-40°C ~ 80°C

-40°F ~ 176°F

Standard color

BU. Blue / **BK.** Black / **NA.** Natural /

G. Green / **OR.** Orange / **R.** Red /

Y. Yellow

Tolerances

3mm~12mm OD/ ± 0.1mm

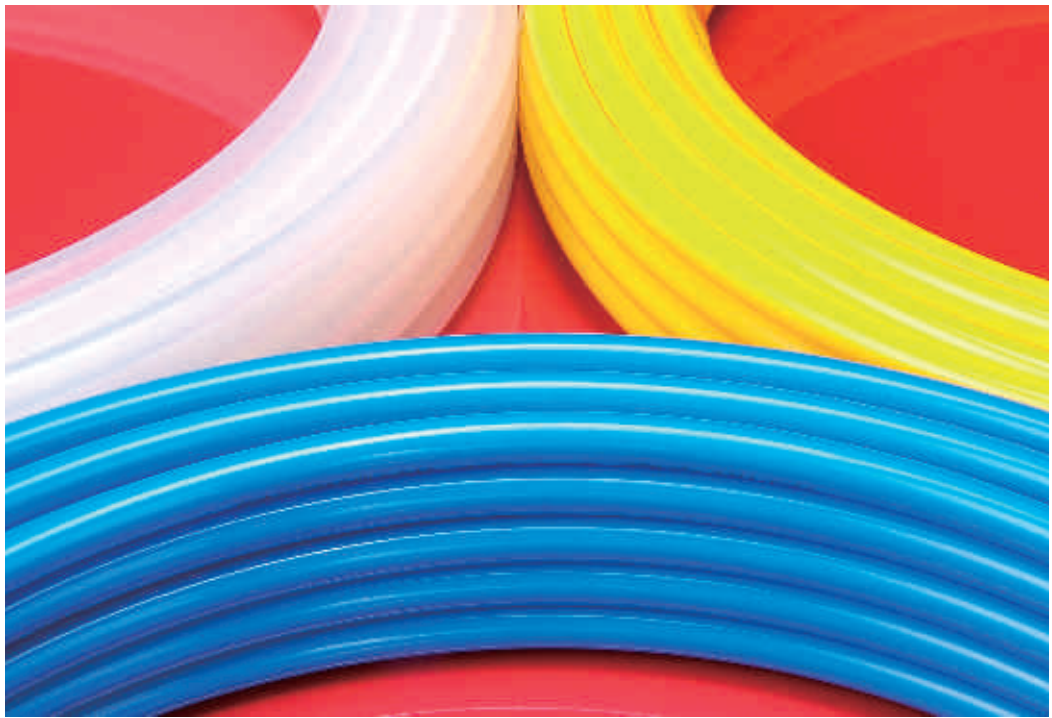
14mm~18mm OD/ ± 0.15mm

± 0.5% on the weight

METRIC SIZE

| PART NUMBER | TUBE OD (mm) | TUBE ID (mm) | WALL THICKNESS (mm) | PACKAGE LENGTH (m) | WORKING PRESSURE AT 23°C (kg/cm ²) | BURST PRESSURE AT 23°C (kg/cm ²) | BEND RADIUS (mm) | WEIGHT PER100M (kg) |
|-------------|--------------|--------------|---------------------|--------------------|--|--|------------------|---------------------|
| N123018 | 3.0 | 1.8 | .60 | 50, 100, 200 | 30 | 120 | 15 | .49 |
| N124025 | 4.0 | 2.5 | .75 | 50, 100, 200 | 28 | 112 | 18 | .78 |
| N124027 | 4.0 | 2.7 | .65 | 50, 100, 200 | 20 | 80 | 20 | .70 |
| N126040 | 6.0 | 4.0 | 1.00 | 50, 100, 200 | 25 | 100 | 38 | 1.60 |
| N128055 | 8.0 | 5.5 | 1.25 | 50, 100 | 24 | 96 | 48 | 2.70 |
| N128060 | 8.0 | 6.0 | 1.00 | 50, 100 | 18 | 72 | 57 | 2.24 |
| N121075 | 10.0 | 7.5 | 1.25 | 50, 100 | 18 | 72 | 66 | 3.50 |
| N121080 | 10.0 | 8.0 | 1.00 | 50, 100 | 14 | 56 | 76 | 2.88 |
| N121290 | 12.0 | 9.0 | 1.50 | 50, 100 | 18 | 72 | 83 | 5.04 |
| N121210 | 12.0 | 10.0 | 1.00 | 50, 100 | 11 | 44 | 70 | 3.52 |
| N121411 | 14.0 | 11.0 | 1.50 | 25, 50, 100 | 14 | 56 | 83 | 6.00 |
| N121613 | 16.0 | 13.0 | 1.50 | 25, 50, 100 | 14 | 56 | 90 | 6.96 |
| N121815 | 18.0 | 15.0 | 1.50 | 25, 50, 100 | 12 | 48 | 115 | 7.92 |

**Other sizes, colors, printing, length and package option may be available.*



INCH SIZE

| PART NUMBER | TUBE OD (inch) | TUBE ID (inch) | WALL THICKNESS (inch) | PACKAGE LENGTH (ft) | WORKING PRESSURE AT 75°F (psi) | BURST PRESSURE AT 75°F (psi) | BEND RADIUS (inch) | WEIGHT PER100FT (lbs) |
|-------------|-------------------|-------------------|--------------------------|------------------------|--------------------------------------|------------------------------------|-----------------------|-----------------------------|
| N1218080 | 1/8 | .080 | .022 | 100.300,500 | 330 | 1320 | 1/2 | 0.35 |
| N1218093 | 1/8 | .093 | .016 | 100.300,500 | 270 | 1080 | 3/8 | 0.26 |
| N12532106 | 5/32 | .106 | .025 | 100.300,500 | 300 | 1200 | 1/2 | 0.45 |
| N12316118 | 3/16 | .118 | .035 | 100.300,500 | 400 | 1600 | 5/8 | 0.74 |
| N12316138 | 3/16 | .138 | .025 | 100.300,500 | 270 | 1080 | 3/4 | 0.56 |
| N1214125 | 1/4 | .125 | .062 | 100.300,500 | 420 | 1680 | 3/4 | 1.77 |
| N1214170 | 1/4 | .170 | .040 | 100.300,500 | 310 | 1240 | 7/8 | 1.16 |
| N1214180 | 1/4 | .180 | .035 | 100.300,500 | 290 | 1160 | 1 | 1.04 |
| N12516232 | 5/16 | .232 | .040 | 100.300,500 | 265 | 1060 | 1-1/2 | 1.52 |
| N1238275 | 3/8 | .275 | .050 | 100.300 | 265 | 1060 | 1-3/4 | 2.26 |
| N1212375 | 1/2 | .375 | .062 | 100.300 | 240 | 960 | 2-1/2 | 3.80 |
| N1258500 | 5/8 | .500 | .062 | 100.300 | 170 | 680 | 3-1/2 | 5.30 |

**Other sizes, colors, printing, length and package option may be available.*

NYLON 6 TUBE

Nylon 6 has an excellent set of properties when compared to other materials. It is also very competitively priced in comparison to other types of Nylon. Products of excellent cost-value and performance can be produced with Nylon 6, making this material one of the most sought-after for consumer and industrial products.

Series

N6 Polyamide 6

Temperature Range

-10°C ~ 80°C

14°F ~ 176°F

Tolerances

4mm~12mm OD/ ± 0.1mm

14mm~18mm OD/ ± 0.15mm

± 0.5% on the weight

Working Pressure

4 to 1 safety factor

Working Pressure at elevated temperature

please refer page 98

Standard color

BU. Blue / **BK.** Black / **NA.** Natural /

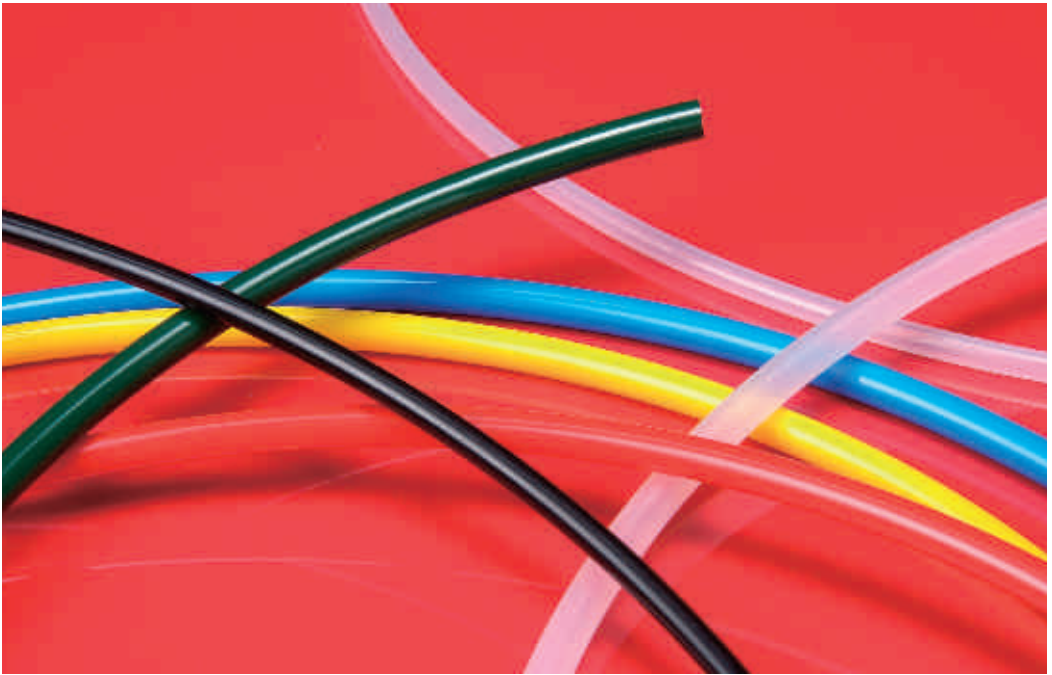
G. Green / **OR.** Orange / **R.** Red /

Y. Yellow

METRIC SIZE

| PART NUMBER | TUBE OD (mm) | TUBE ID (mm) | WALL THICKNESS (mm) | PACKAGE LENGTH (m) | WORKING PRESSURE AT 23°C (kg/cm ²) | BURST PRESSURE AT 23°C (kg/cm ²) | BEND RADIUS (mm) | WEIGHT PER 100M (kg) |
|-------------|--------------|--------------|---------------------|--------------------|--|--|------------------|----------------------|
| N64025 | 4.0 | 2.5 | .75 | 100, 200, 300 | 28 | 112 | 22 | 0.88 |
| N66040 | 6.0 | 4.0 | 1.00 | 100, 200, 300 | 25 | 100 | 44 | 1.81 |
| N68055 | 8.0 | 5.5 | 1.25 | 100, 200, 300 | 24 | 96 | 55 | 3.05 |
| N68060 | 8.0 | 6.0 | 1.00 | 100, 200, 300 | 18 | 72 | 66 | 2.53 |
| N61070 | 10.0 | 7.0 | 1.5 | 100, 200 | 22 | 88 | 69 | 4.6 |
| N61075 | 10.0 | 7.5 | 1.25 | 100, 200 | 18 | 72 | 76 | 3.95 |
| N61080 | 10.0 | 8.0 | 2 | 100, 200 | 14 | 56 | 88 | 3.25 |
| N61290 | 12.0 | 9.0 | 1.5 | 100, 200 | 18 | 72 | 96 | 5.69 |
| N61210 | 12.0 | 10.0 | 1.00 | 100, 200 | 11 | 44 | 80 | 3.97 |
| N61411 | 14.0 | 11.0 | 1.50 | 100, 200 | 14 | 56 | 96 | 6.77 |
| N61613 | 16.0 | 13.0 | 1.50 | 50, 100 | 14 | 56 | 104 | 7.85 |
| N61815 | 18.0 | 15.0 | 1.50 | 50, 100 | 12 | 48 | 132 | 8.94 |

**Other sizes, colors, printing, length and package option may be available.*



INCH SIZE

| PART NUMBER | TUBE OD (inch) | TUBE ID (inch) | WALL THICKNESS (inch) | PACKAGE LENGTH (ft) | WORKING PRESSURE AT 75°F (psi) | BURST PRESSURE AT 75°F (psi) | BEND RADIUS (inch) | WEIGHT PER 100FT (lbs) |
|-------------|----------------|----------------|-----------------------|---------------------|--------------------------------|------------------------------|--------------------|------------------------|
| N618080 | 1/8 | .080 | .022 | 300, 600, 1000 | 330 | 1320 | 1/2 | .36 |
| N618093 | 1/8 | .093 | .016 | 300, 600, 1000 | 270 | 1080 | 3/8 | .27 |
| N6532106 | 5/32 | .106 | .025 | 300, 600, 1000 | 300 | 1200 | 1/2 | .49 |
| N6316118 | 3/16 | .118 | .035 | 300, 600, 1000 | 400 | 1600 | 5/8 | .83 |
| N6316138 | 3/16 | .138 | .025 | 300, 600, 1000 | 270 | 1080 | 3/4 | .60 |
| N614125 | 1/4 | .125 | .062 | 300, 600, 1000 | 420 | 1680 | 7/8 | 1.83 |
| N614170 | 1/4 | .170 | .040 | 300, 600, 1000 | 310 | 1240 | 1 | 1.32 |
| N614180 | 1/4 | .180 | .035 | 300, 600, 1000 | 290 | 1160 | 1-1/4 | 1.17 |
| N6516232 | 5/16 | .232 | .040 | 300, 600, 1000 | 265 | 1060 | 1-3/4 | 1.65 |
| N638275 | 3/8 | .275 | .050 | 300 | 265 | 1060 | 2 | 2.46 |
| N612375 | 1/2 | .375 | .062 | 300 | 240 | 960 | 3 | 4.24 |
| N658500 | 5/8 | .500 | .062 | 300 | 170 | 680 | 4 | 5.50 |

**Other sizes, colors, printing, length and package option may be available.*