

## **FLEXIBLE POLYAMIDE 12 TUBING - NYLO-SEAL®**



### **MATERIAL**

- Polyamide 12

### **APPLICATIONS**

- Automation lines, control, instrumentation and pneumatic accessories.
- Lubrication lines, air, fuels, cooling and air conditioning.
- Process lines with gases, chemical and solvent products.
- Hydraulic lines of low pressure.

### **FEATURES**

- Operating temperature range: -30 °C to 95 °C.
- Working pressure: See tables (recommended safety factor 4-1).
- Excellent resistance to flexural fatigue.
- Complies with SAE, ASTM and DIN 74324 standards specification.

Nylo-Seal® has an exclusive formula, which presents, as one of its main features, low moisture absorption. It absorbs only 1.4% of moisture comparing to other polyamide types. Usually polyamides depend on moisture absorption for their proper flexibility. When moisture is removed due to heating, dry environment or continuous work, tube becomes brittle, which does not occur with Nylo-Seal® tubing.

It maintains the advantages of other polyamides such as strength, burst pressure, elasticity, chemical compatibility, in addition to the additional benefits of flexibility, low weight, and less bend radius.

It has high corrosion resistance, not being affected by ordinary solvents, alkalis, diluted mineral acids, most of the organic acids, petroleum oils and grease, photography solutions, etc.

It has excellent resistance to bend fatigue, being able to be used where there are vibrations or tubing movement.

### **CODE KEY**

- Tubina in inches. Example 44NF(NT)R

(1)	(2)	(3)	(4)
44	NF	(NT)	R

**(1)** - Tubing outside diameter (O.D.): 22 = 1/8"; 33 = 3/16"; 44 = 1/4"; 55 = 5/16"; 66 = 3/8"; 88 = 1/2".

**(1.1)** - Tubing inside diameter (I.D.):

Tubings with dimensions in inches have standard wall thickness (see specification charts).

**(2)** - Tubing material: NF = Flexible 12 Polyamide; SN = Semi-rigid 12 Polyamide; NSR= Semi-rigid 12 Polyamide.

**(3)** - Tubing color: NT = Natural; BK = Black.

Other colors on request

**(4)** - Supply unit: R = Reel. See in the following tables the maximum quantity per reel. Longer lengths may be manufactured. For that, please consult our plant.

### **TECHNICAL DATA**

#### ***Tubing in inches***

NF – Flexible Polyamide 12 tubing for general applications

Part No.	Outside Diameter (O.D.) (in)	Tube Wall Thickness (nominal) (mm)	Minimum Bend Radius (mm)	Maximum Working Pressure at 23°C (psi)	Minimum Burst Pressure at 23°C (psi)	Reel Length (m)	Weight (Approx.) (g/m)
22NF(→)R	1/8	0,58	10,0	250	1000	320	5,0
33NF(→)R	3/16	0,61	16,0	250	1000	320	8,8
44NF(→)R	1/4	0,84	13,0	250	1000	160	16,0
55NF(→)R	5/16	1,00	32,0	250	1000	160	25,5
66NF(→)R	3/8	1,22	38,0	200	800	160	36,3
88NF(→)R	1/2	1,57	51,0	200	800	80	60,0

## NF – Polyamide 12 tubing for special applications

Part No.	Outside Diameter (O.D.) (in)	Tube Wall Thickness (nominal) (mm)	Minimum Bend Radius (mm)	Maximum Working Pressure at 23°C (psi)	Minimum Burst Pressure at 23°C (psi)	Reel Length (m)	Weight (Approx.) (g/m)
440NF(-)R	1/4	1,00	22,0	300	1200	160	18,9
660NF(-)R	3/8	1,52	45,0	250	1000	160	42,0
66NFE(-)R	3/8	2,00	55,0	800	1600	160	60,0
88NFE(-)R	1/2	2,35	60,0	700	1400	80	80,0

## SN – Semi-rigid Polyamide 12 tubing

Part No.	Outside Diameter (O.D.) (in)	Tube Wall Thickness (nominal) (mm)	Minimum Bend Radius (mm)	Maximum Working Pressure at 23°C (psi)	Minimum Burst Pressure at 23°C (psi)	Reel Length (m)	Weight (Approx.) (g/m)
22SN(-)R	1/8	0,43	13,0	375	1500	320	4,0
33SN(-)R	3/16	0,61	19,0	375	1500	320	8,5
44SN(-)R	1/4	0,84	25,4	375	1500	160	16,0
55SN(-)R	5/16	1,00	38,0	375	1500	160	22,8
66SN(-)R	3/8	1,22	45,0	250	1000	160	33,2
88SN(-)R	1/2	1,57	60,0	250	1000	80	58,0

**BURST PRESSURE VERSUS TEMPERATURE DATA**

Suggested working pressure is 1/4 of burst pressure at the system operating temperature, as indicated in the previous tables and graphic (safety factor of 4-1).

Graphic below must be used only as a reference for choosing the tubing, for other factors such as fluid, line shocks, etc may affect these values.

## NSR – Semi-rigid Polyamide 12 tubing

Part No.	Outside Diameter (O.D.) (in)	Tube Wall Thickness (nominal) (mm)	Minimum Bend Radius (mm)	Maximum Working Pressure at 23°C (psi)	Minimum Burst Pressure at 23°C (psi)	Reel Length (m)	Weight (Approx.) (g/m)
22NSR(-)R	1/8	0,64	16,0	625	2500	320	5,5
33NSR(-)R	3/16	0,99	22,0	625	2500	320	12,4
44NSR(-)R	1/4	1,27	28,0	625	2500	160	22,0
55NSR(-)R	5/16	1,57	41,0	500	2000	160	33,0
66NSR(-)R	3/8	1,90	48,0	500	2000	160	47,5
88NSR(-)R	1/2	1,90	63,0	375	1500	80	68,5

