# **PA Tubing**

**Tried-and-tested** for industrial or vehicle applications, PA tubing guarantees excellent durability due to its stable long-term mechanical properties.

Parker Legris' special grade of semi-rigid polyamide is manufactured according to our **Eco-Design** approach for higher performance.

# **Product Advantages**

Tried-&-Tested Material

Good chemical and humidity resistance

Excellent material stability (mechanical and chemical)

Continuous calibration during production for excellent reliability

Two material grades: rigid and semi-rigid

Bio-based semi-rigid material

**Versatility & Performance** 

Wide range of working pressure and temperature

Good vibration absorption

Abrasion-resistant

Remaining length marking

Large choice of colours to facilitate circuit identification

Silicone-free



Packaging Tooling Compressed Air Motion Technologies Robotics Industrial Machinery

## **Technical Characteristics**

Tubing	Semi-Rigid PA	Rigid PA
Compatible Fluids	Compressed air, other fluids	Compressed air, lubricants, other fluids
Working Pressure	Vacuum to 50 bar	Vacuum to 60 bar
Working Temperature	-40°C to +100°C	-40°C to +80°C
Component Materials	Bio-based polyamide (68 shore D)	Polyamide (65 shore D)

Reliable performance is dependent upon the type of fluid conveyed and fittings being used. Use is guaranteed with a vacuum of 755 mm Hg (99% vacuum).

## Regulations

#### Industrial

DI: 2002/95/EC (RoHS), 2011/65/EC

DI: 97/23/EC (PED) RG: 1907/2006 (REACH)

## Transportation

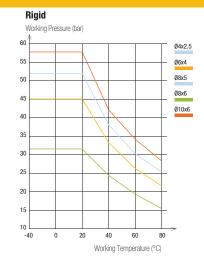
Chemical performance and resistance tested according to

DIN 74324 -1 / DIN 73378 / ISO 7628

## Packaging

Tubepack®: 25 m, 100 m Drum: 500 m, 1000 m

#### **Performance of PA Tubing** Semi-Rigid Ø3x1.8 Working Pressure (bar) Ø4x2.7 Ø4x2 Ø5x3.3 40 Ø6x4 35 Ø8x6 Ø10x7.5 Ø10x8 25 Ø12x10 Ø12x9 Ø14x11 15 Ø14x12 Ø16x13 40 60 80 10 Working Temperature (°C)



Tube O.D.	Tube O.D. Tolerance
3 to 5 mm	+0.05 / -0.08
6 to 16 mm	+0.05 / -0.10

Connected to Parker Legris push-in fittings, the calibration of Parker Legris tubing ensures perfect sealing in accordance with NF E49-100.

# 1025P Semi-Rigid Polyamide (PA) Tubing

Tubepack<sub>®</sub> 25 m

<b>0.D.</b> (mm)	<b>I.D.</b> (mm)	<b>€</b> R	Clear	<b>E</b>		<b>[</b>	<b>E</b>	<b>E</b>		kg
3	1.8	6	1025P03 00 18				1025P03 04 18			0.020
4	2	10	1025P04 00	1025P04 01	1025P04 02	1025P04 03	1025P04 04	1025P04 05	1025P04 06	0.318
4	2.7	10	1025P04 00 27	1025P04 01 27	1025P04 02 27	1025P04 03 27	1025P04 04 27	1025P04 05 27	1025P04 06 27	0.254
5	3.3	15	1025P05 00 33	1025P05 01 33			1025P05 04 33			0.420
6	4	15	1025P06 00	1025P06 01	1025P06 02	1025P06 03	1025P06 04	1025P06 05	1025P06 06	0.535
8	6	25	1025P08 00	1025P08 01	1025P08 02	1025P08 03	1025P08 04	1025P08 05	1025P08 06	0.748
10	7.5	42	1025P10 00 75	1025P10 01 75			1025P10 04 75			1.135
10	8	50	1025P10 00	1025P10 01	1025P10 02	1025P10 03	1025P10 04	1025P10 05	1025P10 06	0.989
12	9	47	1025P12 00 09	1025P12 01 09			1025P12 04 09			1.769
12	10	90	1025P12 00	1025P12 01			1025P12 04			1.345
14	11	80	1025P14 00 11	1025P14 01 11			1025P14 04 11			2.226
14	12	116	1025P14 00	1025P14 01			1025P14 04			1.734
16	13	90	1025P16 00 13	1025P16 01 13	1025P16 02 13	1025P16 03 13	1025P16 04 13			2.500

Inch version tubing available upon request

## 1100P Semi-Rigid Polyamide (PA) Tubing

Tubepack<sub>®</sub> 100 m

<b>O.D.</b> (mm)	<b>I.D.</b> (mm)	<b>€</b> R	Clear	[	[	<b>[</b>	[	<b>[</b>	[	kg
4	2	10	1100P04 00	1100P04 01	1100P04 02	1100P04 03	1100P04 04	1100P04 05	1100P04 06	1.152
4	2.7	10	1100P04 00 27	1100P04 01 27	1100P04 02 27	1100P04 03 27	1100P04 04 27	1100P04 05 27	1100P04 06 27	0.893
5	3.3	15	1100P05 00 33	1100P05 01 33			1100P05 04 33			1.274
6	4	15	1100P06 00	1100P06 01	1100P06 02	1100P06 03	1100P06 04	1100P06 05	1100P06 06	1.799
8	6	25	1100P08 00	1100P08 01	1100P08 02	1100P08 03	1100P08 04	1100P08 05	1100P08 06	2.898
10	7.5	42	1100P10 00 75	1100P10 01 75			1100P10 04 75			4.400
10	8	50	1100P10 00	1100P10 01	1100P10 02	1100P10 03	1100P10 04	1100P10 05		3.667
12	9	47	1100P12 00 09	1100P12 01 09			1100P12 04 09			5.600
12	10	90	1100P12 00	1100P12 01			1100P12 04		1100P12 06	5.052
14	11	80	1100P14 00 11	1100P14 01 11			1100P14 04 11			5.200
14	12	116	1100P14 00	1100P14 01			1100P14 04			4.800
16	13	90	1100P16 00 13	1100P16 01 13	1100P16 02 13	1100P16 03 13	1100P16 04 13			7.800

Inch version tubing available upon request

## **2005P** Semi-Rigid Polyamide (PA) Tubing

Drum 500 m

	<b>0.D.</b> (mm)	<b>I.D.</b> (mm)	<b>€</b> R	Clear					<b>[</b>	<b>[</b>	kg
_	8	6	25	2005P08 00	2005P08 01	2005P08 02	2005P08 03	2005P08 04	2005P08 05	2005P08 06	12.100
	10	8	50	2005P10 00	2005P10 01	2005P10 02	2005P10 03	2005P10 04	2005P10 05		15.600

## 2010P Semi-Rigid Polyamide (PA) Tubing

Drum 1000 m

<b>0.D.</b> (mm)	<b>I.D.</b> (mm)	<b>€</b> R	Clear	[		<b>[</b>		<b>[</b>		kg
4	2.7	10	2010P04 00 27	2010P04 01 27	2010P04 02 27	2010P04 03 27	2010P04 04 27	2010P04 05 27	2010P04 06 27	7.630
6	4	15	2010P06 00	2010P06 01	2010P06 02	2010P06 03	2010P06 04	2010P06 05	2010P06 06	16.600

## **Tube Cutting to the Required Length**

- Cutting of your tubing upon request, from 5 cm to 3 m  $\,$
- Precision +/- 3 mm
- Ideal for optimising your installation costs



# **PA Tubing**

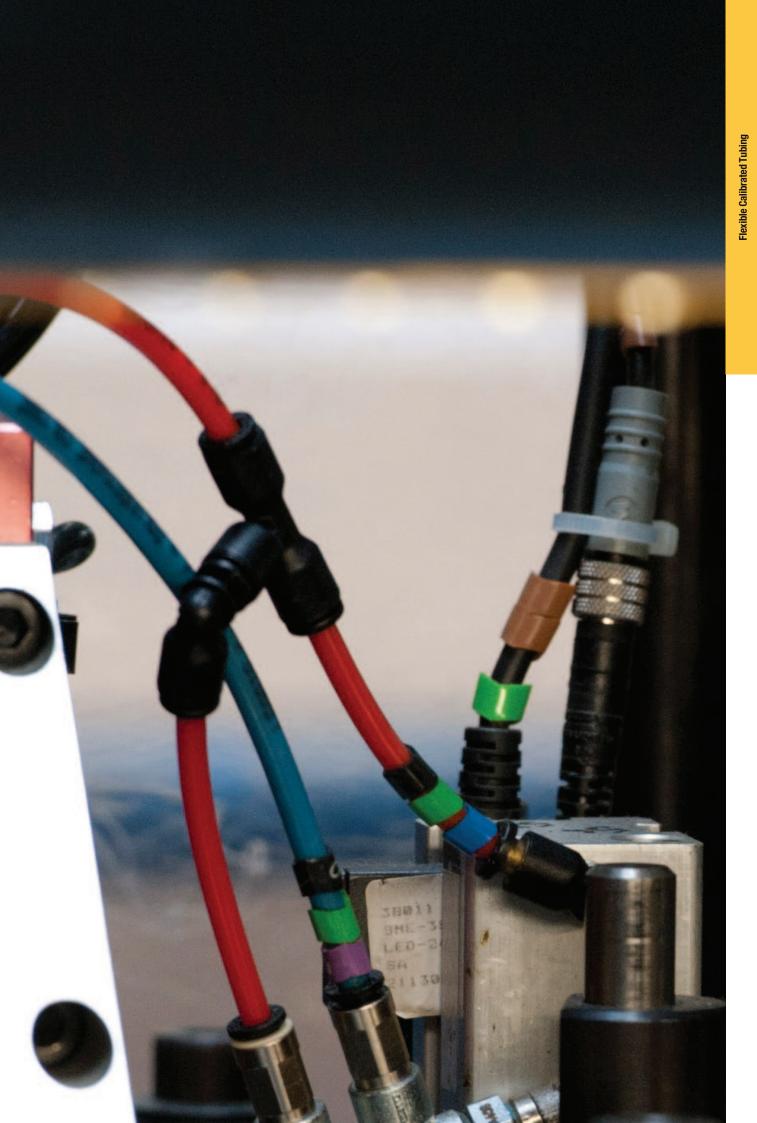
# 1025L Rigid Polyamide (PA) Tubing

Tubepack® 25 m

<b>0.D.</b> (mm)	<b>I.D.</b> (mm)	<b>€</b> R		kg
4	2.5	35	1025L04 01 25	0.190
6	4	45	1025L06 01	0.400
8	5	70	1025L08 01 05	0.760
8	6	65	1025L08 01	0.760
10	6	85	1025L10 01 06	1.330

PA tubing can be connected to various fittings shown throughout this catalogue.

# Tubing Push-In Fittings LF 3000° P. 1-4 LF 3600 P. 1-65 LF 3800/LF 3900 P. 1-77 LF 6100 P. 1-89 Rigid PA Compression Fittings Brass P. 5-5 Stainless Steel P. 5-31 Ferrules P. 5-5



This **single layer fireproof** tubing not only combines excellent resistance to pressure, temperature and flame, but also guarantees non-toxic smoke resulting from burn-off. This tubing eliminates the need for a stripping tool, thus preventing the risk of tube damage prior to connection.

## **Product Advantages**

Safety for On-Board Railway Equipment

Designed for on-board equipment

Excellent flame-resistance: self-extinguishing

Very little smoke generation

Non-toxic combustion gases

**UV-resistant** 

Extremely resistant to high pressure and temperature

Single-Laver Solution

**Innovative** Developed for demanding industrial applications

Excellent spark resistance

Economical alternative to PA tubing with PVC sheath

Combines technical advantages of rigid and semi-rigid

PA tubing

5 colours available

Flow direction marking

Silicone-free



Railway Air Horns Industrial Machinery Pneumatic Doors Step-Units Centralised Lubrication Welding

## **Technical Characteristics**

Compatible Fluids	Compressed air, lubricants Other fluids: please consult us
Working Pressure	Vacuum to 50 bar
Working Temperature	-40°C to +100°C
Component Materials	Polyamide (63 shore D)

Reliable performance is dependent upon the type of fluid conveyed and fittings being used. Use is guaranteed with a vacuum of 755 mm Hg (99% vacuum).

## Regulations

Railway

Pr EN 45545-2: HL3, R22, R24, R25

NF F16101: I3 F2 DIN 5510-2: S4, SR2, ST2

**ISO** 4892

Industrial DI: 97/23/EC (PED)

DI: 2002/95/EC (RoHS), 2011/65/EC RG: 1907/2006/EC (REACH)

UL94 V-0 (Fire resistance)

#### **Performance of Fireproof High Resistance PA Tubing**



Tube O.D.	Tube O.D. Tolerance
4 mm	+0.05 / -0.08
6 to 12 mm	+0.05 / -0.10

Connected to Parker Legris push-in fittings, the calibration of PA tubing ensures perfect sealing based on NF E49-100.

#### Packaging

Tubepack®: 25 m, 100 m Drum: 500 m, 1000 m

To calculate burst pressure, the values in this graph should be multiplied by 3.

## **1025P...R** Fireproof High Resistant Polyamide (PA)

Tube	pack◎	25	m
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<b>0.D.</b> (mm)	<b>I.D.</b> (mm)	<b>€</b> R	Clear	[3]			Ē	kg
4	2	17	1025P04R00	1025P04R01	1025P04R02	1025P04R03	1025P04R04	0.367
6	4	29	1025P06R00	1025P06R01	1025P06R02	1025P06R03	1025P06R04	0.554
8	6	40	1025P08R00	1025P08R01	1025P08R02	1025P08R03	1025P08R04	0.554
10	8	77	1025P10R00	1025P10R01	1025P10R02	1025P10R03	1025P10R04	0.721
12	9	92	1025P12R00	1025P12R01	1025P12R02		1025P12R04	1.345

# 1100P...R Fireproof High Resistant Polyamide (PA)

## Tubepack<sub>®</sub> 100 m

<b>0.D.</b> (mm)	<b>I.D.</b> (mm)	<b>€</b> R	Clear		<b>2</b>	[3]		kg
4	2	17	1100P04R00	1100P04R01	1100P04R02	1100P04R03	1100P04R04	1.308
6	4	29	1100P06R00	1100P06R01	1100P06R02	1100P06R03	1100P06R04	1.308
8	6	40	1100P08R00	1100P08R01	1100P08R02	1100P08R03	1100P08R04	2.122
10	8	77	1100P10R00	1100P10R01	1100P10R02	1100P10R03	1100P10R04	2.725
12	9	92	1100P12R00	1100P12R01			1100P12R04	5.052

# **2005P..R** Fireproof High Resistant Polyamide (PA)

## Drum 500 m

<b>0.D.</b> (mm)	<b>I.D.</b> (mm)	<b>€</b> R	Clear	[3]	Ē		Ē	kg
8	6	40	2005P08R00	2005P08R01	2005P08R02	2005P08R03	2005P08R04	17.500
10	8	77	2005P10R00	2005P10R01	2005P10R02	2005P10R03	2005P10R04	22.800

# **2010P...R** Fireproof High Resistant Polyamide (PA)

## Drum 1000 m

<b>0.D.</b> (mm)	<b>I.D.</b> (mm)	$\mathcal{C}_{R}$	Clear					kg
4	2	17	2010P04R00	2010P04R01	2010P04R02	2010P04R03	2010P04R04	14.300
6	4	29	2010P06R00	2010P06R01	2010P06R02	2010P06R03	2010P06R04	23.000

## **Related Products**

Fireproof high resistance tubing can be connected to various fittings presented in this catalogue in Chapter 1.

## Push-In Fittings

LF 3800/LF 3900

**LF 6100** 

**Brass Brass Tube Support** 

**Compression Fittings** 







LF 3000° LF 3600

# Anti-Spark PA Tubing with PVC Sheath

A range of **flame and spark-resistant** PA tubing with superior resistance to impact and abrasion, improving equipment durability, particularly in areas subject to weld spatter.

# **Product Advantages**

Resistance

Spark | Flame-retardant PVC jacket protects inner tubing Non-adhesive jacket facilitates sheath removal Excellent pressure resistance at high temperature

**Durability** 

Robustness & Highly kink and crush-resistant Excellent compatibility with coolants Flow direction marking Silicone-free



Industrial Machinery Welding Robots Cooling Aggressive Environments

## **Technical Characteristics**

Compatible Fluids	Hot and cold water, refrigerated fluids, compressed air
Working Pressure	0 to 36 bar
Working Temperature	-20°C to +80°C
Component Materials	Polyamide & PVC Sheath

Reliable performance is dependent upon the type of fluid conveyed and fittings being used.

#### Regulations

#### Industrial

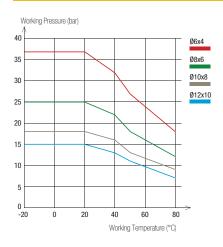
DI: 2002/95/EC (RoHS), 2011/65/EC

**DI:** 97/23/EC (PED) RG: 1907/2006 (REACH) UL94 V-0 (Fire resistance)

## **Packaging**

Tubepack®: 25 m, 100 m

#### Performance of Anti-Spark PA Tubing with PVC Sheath



To calculate burst pressure, the values in this graph
should be multiplied by 3.

0.D.	Tube O.D. Tolerance	PVC Sheath Thickness
PVC Sheath 8 to 14 mm	+0.10 / -0.10	1 mm
Inner Tubing 6 to 12 mm	+0.05 / -0.10	1 111111

Connected to Parker Legris push-in fittings, the calibration of PA tubing ensures perfect sealing based on NF E49-100 (semi-rigid PA inner tubing).

Tube O.D.	Sheath Removal Length for LF 3600 Push-In Fittings (mm)
4 mm	15± 1
6 mm	18± 1
8 mm	19± 1
10 mm	24± 1
12 mm	25± 1

For other fitting ranges, please consult us.

# 1025P..V Anti-Spark Polyamide (PA) Tubing

Tubepack<sub>®</sub> 25 m

<b>O.D.</b> (mm)	I.D. (mm)	<b>€</b> R					kg
6	4	25	1025P06V01	1025P06V02	1025P06V03	1025P06V04	1.238
8	6	30	1025P08V01	1025P08V02	1025P08V03	1025P08V04	1.693
10	8	55	1025P10V01	1025P10V02	1025P10V03	1025P10V04	2.029
12	10	70	1025P12V01	1025P12V02	1025P12V03	1025P12V04	2.970

## 1100P..V Anti-Spark Polyamide (PA) Tubing

Tubepack<sub>®</sub> 100 m

<b>0.D.</b> (mm)	<b>I.D.</b> (mm)	<b>€</b> R		Ē		E	kg
6	4	25	1100P06V01	1100P06V02	1100P06V03	1100P06V04	2.338
8	6	30	1100P08V01	1100P08V02	1100P08V03	1100P08V04	3.767
10	8	55	1100P10V01	1100P10V02	1100P10V03	1100P10V04	4.767
12	10	70	1100P12V01	1100P12V02	1100P12V03	1100P12V04	6.567

# **6000 71 00** Stripping Tool for Anti-Spark Tubing



## **Working Principle**

Stripping Tool **6000 71 00** 



1. Place tube in stripping tool to adjust the blade height to the tube thickness.



**2.** Blade height is adjusted using the wheel at the bottom of the handle.



3. Once adjustments have been made, perform a 360° rotation around the tube with the tool.



**4.** Push down firmly on the metal part of the tool in order to hold tube properly.



**5.** Move the tool to the end of the tube to create an axial opening of the sheath.



**6.** The tube is correctly stripped.