technical tubes and hoses





technical tubes and hoses

Legris' policy is to be able to offer its customers a complete range of fittings, and in addition, a full range of tubes and hoses, compatible with the different ranges of fittings featured in this catalogue.

polyurethane twin tubing



- allows compact installations in confined areas
- single or double coloured (for easy identification of circuits)
- maintains circular shape after separation
- available in 4 mm, 6 mm and 8 mm O.D.

multitube

- to streamline and protect tubing
- comprises a PVC sheath, containing calibrated nylon tubing
- fire resistant to NFE 32070.C2
- 6 different colours and numbering of tubes from 1 to 12 for fast identification of circuits



- translucent for visual checking of fluids
- food quality
- available in 8 mm to 26 mm O.D

self-fastening tubing



- excellent resistance to hydrocarbons, UV, sparks, abrasion and rupture
- ozone resistant
- simple and easy push on installation
- for use with Legris quick-acting barbed fittings

anti-static tubing

- prevents accumulation of electrostatic charge
- excellent flexibility and conductivity
- low surface resistance
- calibrated, available in 3 mm to 12 mm O.D.

Packaging



- Tubepack[®] , 5m to 100m rolls.
- drum, 100 m long
- drum, up to 1 000 m long

🔁 K2

technical tubes and hoses

All Legris tubing and hose designs conform to international standards. In order to offer global solutions for connection, Legris provides users with a comprehensive range suitable for most applications in order to meet the majority of users' needs.

nylon tubing



- rigid and semi-rigid
- optimum mechanical properties and good chemical resistance
- 7 colours for visual identification of circuits
- close tolerance, available in 3 mm to 16 mm O.D., supplied in 25 m and 100 m rolls

polyethylene tubing



- good resistance to aggressive and corrosive agents
- material authorized by FDA (food applications)
- economical solution
- close tolerance, available in 4 to 14mm OD and (1/4, 3/8 and 1/2 O.D.)

polyurethane tubing



- highly flexible for use in reduced spaces and for small bend radius applications
- Polyester and polyether version for optimum mechanical properties and good chemical resistance.
- 7 colours available for coding of circuits
- close tolerance, available in 3 mm to 14 mm O.D, supplied in 25 m and 100 m rolls

fluoropolymer FEP 140 tubing



- excellent resistance to aggressive and corrosive agents and high temperatures
- food quality to FDA 177.1550
- close tolerance, available in 4 mm to 12 mm O.D., supplied in 5 m and 25 m rolls



- UL94 VO Standard for aggressive environments and welding application
- comprises a PVC sheath and semi-rigid nylon tubing
- special marking to facilitate stripping and assembly
- available in 4 colours from 4 mm to 12 mm O.D., supplied in 25 m and 100 m lengths

recoil tubing



- nylon and polyurethane
- ages well with excellent flexibility and coil retention
- ready for use and designed with spring protection end fittings
- close tolerance, available in 3 colours and 3 lengths, 4 mm to 12 mm O.D.

Compatibility - Legris connections / technical tubes and hoses

The extensive compatibility of Legris fittings/technical tubes and hoses is ideally suited for many industrial and food applications.

Recoil tubing



C 9000 quick acting couplers





Self-fastening hose



In order to obtain the best performance of the fitting/tube connection, the technical specifications of each component should be taken into account by the user.

Compatibility - Legris connections / technical tubes and hoses

In order to obtain the best performance of the fitting/tube connection, the technical specifications of each component should to be taken into account by the user.

Nylon tubing

type	connections	applications
semi-rigid	LF 3000°, LF 3600, LF 3800 push-in fittings brass and stainless steel compression fittings (ferrules are necessary) adaptors	pneumatic systems
multitube semi-rigid/PVC sheath	multi-connector	pneumatic circuits submitted to external aggression
		2005
rigid	push-in fittings for centralised lubrication	centralised lubrication circuits

Polyurethane tubing



Fluoropolymer FEP 140 tube



Anti-spark tubing

type	connections	applications
anti-spark nylon tubing anti-spark polyurethane tubing	LF 6000 push-in fittings	installations submitted to aggressive environments and spark projections
83	- 300	
anti-spark single layer polyurethane tubing	LF 3600 push-in fittings	installations submitted to aggressive environments and spark projections
83		

Packaging-Legris tubes and hoses

Legris offers several types of packaging to meet customers' requirements.

Tubepack®

standard

- for polyurethane, nylon, FEP 140 and polyethylene and anti-spark tubing.
- rationalisation of tube storage plus:
 - immediate identification of the tube type
 - unreels easily and efficient storage





Drum, up to 1 000 m long

upon request

- for nylon, polyurethane and FEP 140 tubing
- for optimized handling





the complete range of technical tubes and hoses



You will find the application table for Legris nylon and polyurethane tubing pages K26 to K28.

technical tubes and hoses close tolerance semi-rigid and rigid nylon tubing



Technical characteristics of Legris nylon tubing also depend on the type of connection used.

This range includes semi-rigid nylon tubing for pneumatic systems and rigid nylon tubing for centralized lubrication applications that require high pressure. Legris nylon tubing provides optimum mechanical properties, has good chemical resistance and conforms to NF E49-100 standard. Semi-rigid tube is shore hardness 60°D and rigid tube, shore hardness 65°D

o.d. of tube	tolerances			
	on o.d			
3 to 5 mm	+0,05	-0,08		
6 to 16 mm	+0,05	-0,1		

Connected to **Legris** instant fittings, the calibration of Legris nylon tubing ensures **perfect sealing**.

pressure and temperature resistance of Legris nylon tubing

In the graph below, each curve represents the acceptable maximum pressure at a given temperature, by diameter. example : semi-rigid nylon tube, Ø14x12, at 10°C, maximum pressure = 12 bar



to calculate burst pressure, the value in the above graph should be multiplied x 3.

semi-rigid nylon tubing



to calculate burst pressure, the value in the above graph should be multiplied x 3.

The **vacuum capability** of Legris semi-rigid nylon tubing is of 755 mm Hg (99 % vacuum). Connected with LF 3000[®] push-in fittings, it offers excellent vacuum performance.

advantages of Legris nylon tubing

- large range of working temperatures and pressures
- good chemical resistance (see list of fluids at the end of
- this section pages K27/K28)
- good humidity resistance

- small pressure drop
- constant rigidity, good ageing with constant tolerance on O.D.
- good absorbtion of vibration
- strong abrasion resistance
- •7 colours for easy identification of circuits

🔁 K8

close tolerance semi-rigid and rigid nylon tubing

o.d. tube mm	i.d.	R minimum bend radius	close tolerance semi-rigid nylon tubing, 25 m rolls							
	tube mm	for tube at ambient temp. in mm		2	1	2		2	1	for 25 m
3	1,8	8	1025P03 00 18				1025P03 04 18			0,020
4	2	25	1025P04 00	1025P04 01	1025P04 02	1025P04 03	1025P04 04	1025P04 05	1025P04 06	0,318
4	2,7	30	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	25	1025P05 00 33	1025P05 01 33			1025P05 04 33			0,420
6	4	35	1025P06 00	1025P06 01	1025P06 02	1025P06 03	1025P06 04	1025P06 05	1025P06 06	0,535
8	6	55	1025P08 00	1025P08 01	1025P08 02	1025P08 03	1025P08 04	1025P08 05	1025P08 06	0,748
10	7,5	75	1025P10 00 75	1025P10 01 75			1025P10 04 75			1,135
10	8	90	1025P10 00	1025P10 01	1025P10 02	1025P10 03	1025P10 04	1025P10 05	1025P10 06	0,989
12	9	75	1025P12 00 09	1025P12 01 09			1025P12 04 09			1,769
12	10	90	1025P12 00	1025P12 01			1025P12 04			1,345
14	11	120	1025P14 00 11	1025P14 01 11			1025P14 04 11			2,226
14	12	100	1025P14 00	1025P14 01			1025P14 04			1,734
16	13	120	1025P16 00 13							2,500

1025P close tolerance semi-rigid nylon tubing, 25 m rolls

1100P close tolerance semi-rigid nylon tubing, 100 m rolls

o.d. i.d.		R minimum bend radius	close tolerance semi-rigid nylon tubing, 100 m rolls							
mm m	tube mm	for tube at ambient temp. in mm		2		E		2		for 100 m
4	2	25	1100P04 00	1100P04 01	1100P04 02	1100P04 03	1100P04 04	1100P04 05	1100P04 06	1,152
4	2,7	30	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	25	1100P05 00 33	1100P05 01 33			1100P05 04 33			1,274
6	4	35	1100P06 00	1100P06 01	1100P06 02	1100P06 03	1100P06 04	1100P06 05	1100P06 06	1,799
8	6	55	1100P08 00	1100P08 01	1100P08 02	1100P08 03	1100P08 04	1100P08 05	1100P08 06	2,898
10	7,5	75	1100P10 00 75	1100P10 01 75			1100P10 04 75			4,400
10	8	90	1100P10 00	1100P10 01	1100P 10 02	1100P10 03	1100P10 04	1100P10 05		3,667
12	9	75	1100P12 00 09	1100P12 01 09			1100P12 04 09			5,600
12	10	90	1100P12 00	1100P12 01			1100P12 04			5,052
14	11	120	1100P14 00 11	1100P14 01 11			1100P14 04 11			5,200
14	12	100	1100P14 00	1100P14 01			1100P14 04			4,800
16	13	120	1100P16 00 13							7,800

1025L close tolerance rigid nylon tubing, 25 m rolls

o.d. tube mm	i.d.	R minimum bend radius	tube in 25 metre rolls	∆kg∆
	tube mm at ambient temp. in mm		for 25 m	
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

technical tubes and hoses close tolerance flexible polyurethane tubing



Technical characteristics of Legris polyurethane tubing also depend on the type of connection used.

The excellent flexibility of Legris flexible polyurethane tubing allows compact cabling where a small bend radius is required. Legris flexible polyurethane tubing has a shore hardness 52°D and conforms to NF E49-101 standard.

The Legris range comprises 2 versions:

- polyester polyurethane tubing, for superior chemical resistance and improved ageing,
- polyether polyurethane tubing, for excellent resistance to humidity and bacteriological aggressions.

o.d. of tube	tolerand on o.d.	es	Connected to Legris instant fittings,
3 to 8 mm	+0,10	-0,10	the calibration of Legris polyurethane
10 to 14 mm	+0,15	-0,15	tubing ensures perfect sealing.

pressure and temperature resistance of Legris polyurethane tubing

In the graph below, each curve represents the acceptable maximum pressure at a given temperature, by diameter. example : polyurethane tube, Ø4 mm, at 20°C, working pressure = 10 bar



to calculate **burst pressure**, the values in the above graph should be multiplied x 3

The **vacuum capability** of Legris flexible polyurethane tubing is of 755 mm Hg (99 % vacuum). Connected with LF 3000[®] push-in fittings, it offers excellent vacuum performance.

advantages of Legris polyurethane tubing

- high flexibility and small bend radius
- large range of working temperatures and pressures
- good chemical resistance (see the list of fluids at the end of this section)
- 7 colours for easy circuit identification
- fluid identification (crystal version)

constant rigidity, good ageing

good absorbtion of vibration

small pressure drop

• ŬV resistant

- In order to answer the different needs of the user, Legris provides additional ranges of polyurethane tubing :
- anti-static polyurethane tubing page K12
- polyurethane twin tubing page K15
- polyurethane recoil tubing pages K17/K18

close tolerance flexible polyurethane tubing



1025U flexible polyester polyurethane tubing, in 25 m rolls

1100U flexible polyester polyurethane tubing, in 100 m rolls

o.d.	i.d.	R minimum bend radius for tube	flexible polyester polyurethane tubing, in 100 m rolls						
mm mm	mm	at ambient tempera- ture in mm		Ł	2				for 100 m
4	2,5	10	1100U04 01	1100U04 02	1100U04 03	1100U04 04	1100U04 05	1100U04 06	1,092
5	3	13	1100U05 01			1100U05 04			1,605
6	4	15	1100U06 01	1100U06 02	1100U06 03	1100U06 04	1100U06 05	1100U06 06	2,064
8	5,5	20	1100U08 01	1100U08 02	1100U08 03	1100U08 04	1100U08 05	1100U08 06	3,610
10	7	25	1100U10 01			1100U10 04			6,105
12	8	35	1100U12 01			1100U12 04			8,610
14	9,5	45	1100U14 01 95			1100U14 04 95			11,215

1025U..R close tolerance flexible polyether polyurethane tubing, in 25 m rolls

o.d.	d. i.d. for tube		close tolerance flex	close tolerance flexible polyether polyurethane tubing, in 25 m rolls				
mm mm	mm	at ambient tempera- ture in mm	2	2	CRYSTAL	for 25 m		
4	2,5	8	1025U04R01	1025U04R04	1025U04R08	0,310		
5	3	11			1025U05R08	0,522		
6	4	12	1025U06R01	1025U06R04	1025U06R08	0,591		
8	5,5	18	1025U08R01	1025U08R04	1025U08R08	0,971		
10	7	22	1025U10R01	1025U10R04	1025U10R08	1,467		
12	8	35	1025U12R01	1025U12R04	1025U12R08	2,406		
14	9,5	45		1025U14R04 95	1025U14R08 95	2,815		

1100U..R close tolerance flexible polyether polyurethane tubing, in 100 m rolls

b o	R minimum bend radius		close tolerance flex	close tolerance flexible polyether polyurethane tubing, in 100 m rolls				
tube tube mm mm	tube mm	for tube at ambient tempera- ture in mm	2	5	CRYSTAL	for 100 m		
4	2,5	8	1100U04R01	1100U04R04	1100U04R08	1,092		
6	4	12	1100U06R01	1100U06R04	1100U06R08	2,064		
8	5,5	18	1100U08R01	1100U08R04	1100U08R08	3,610		
10	7	22			1100U10R08	6,109		
12	8	35			1100U12R08	8,610		
14	9,5	45			1100U14R08 95	11,215		

technical tubes and hoses close tolerance anti-static polyurethane tubing



Technical performance characteristics of Legris anti-static polyurethane tubing are the same as for Legris polyurethane tubing. Please refer to the previous pages. Legris anti-static polyurethane tubing has a low surface resistance and is designed to prevent accumulation of electrostatic charges. It perfectly meets the requirements of electronic environments and has a surface hardness of 50° shore D.

o.d.	tolerances			
of tube	on o.d.			
3 to 8 mm	+0,10	-0,10		
10 to 12 mm	+0,15	-0,15		

Connected to Legris instant fittings, the calibration of Legris anti-static tubing ensures perfect sealing.

1100U anti-static polyurethane tubing

o.d. tube mm	i.d. tube mm	R minimum bend radius for tube at 20° C (in mm)	in 100 m rolls	<mark>∆kg∆</mark> per 100 m
3	1,5	8	1100U03A01	0,836
4	2,5	10	1100U04A01	1,092
6	4	15	1100U06A01	2,064
8	5,5	25	1100U08A01	3,610
10	7	35	1100U10A01	6,105
12	8	45	1100U12A01	8,610

legris.com's plus points



You will also find **technical tubes and hoses** available in inch dimensions in the on-line catalogue on our web-site – www.legris.com

www.legris.com

🔁 K12

technical tubes and hoses close tolerance polyethylene tubing



Technical characteristics of Legris polyethylene tubing also depend on the type of connection used.

Legris polyethylene tubing provides good resistance to aggressive and corrosive agents and is impermeable to gas and moisture.

It's odourless, **FDA approved material** makes Legris polyethylene tubing well suited for **food applications**. It has a surface hardness of 44° shore D.

o.d.	tolerances		
of tube	on o.d.		
1/8" to 1/2"	+0,1	-0,1	
4 to 14 mm	+0,1	-0,1	

Pressure and temperature resistance of Legris polyethylene tubing

In the graph below, each curve represents the acceptable maximum pressure at a given temperature, by diameter. example : polyethylene tube, Ø 1/4, at 10°C, working pressure = 12 bar

1025Y R polyethylene tubing

o.d. tube	i. tu inch	d. be mm	R minimum bend radius for tube at 20° C (in mm)	in 25 m rolls	<mark>∆kg</mark> ∆ per 25 m
1/8	0,062	1,57	13	1025Y53 00	0,270
1/4	0,17	4,3	32	1025Y56 00	0,400
3/8	0,25	6,35	50	1025Y60 00	0,760
1/2	0,38	9,65	64	1025Y62 00	1,330

1100Y \mathcal{R} polyethylene tubing

o.d. tube mm	i.d. tube mm	R minimum bend radius for tube at 20° C (in mm)	in 100 m rolls	<mark>∆kg∆</mark> per 100 m
4	2	25	1100Y04 00	0,910
6	4	35	1100Y06 00	1,500
8	6	55	1100Y08 00	2,110
10	8	80	1100Y10 00	2,710
12	9	65	1100Y12 00	4,750
14	11	80	1100Y14 00	5,650

to calculate **burst pressure**, the values in the above graph should be multiplied x 3



to calculate $\ensuremath{\textbf{burst pressure}}$, the values in the above graph should be multiplied x 3

 \mathbf{y} = suitable for food applications

technical tubes and hoses close tolerance fluoropolymer FEP 140 tube



Technical characteristics of Legris fluoropolymer FEP 140 tube also depend on the type of connection used.

Legris fluoropolymer tube FEP 140 is food quality and provides excellent resistance to aggressive and corrosive agents and to high temperatures. It has a surface hardness of 55° shore D.

O.D. of tube	Toleran on O.D.	ices
4 mm	+0,05	-0,05
6 to 10 mm	+0,07	-0,07
12 mm	+0,10	-0,10

40 tube

Pressure and temperature resistance of Legris FEP 140 tube

In the graph below, each curve represents the acceptable maximum pressure at a given temperature, by diameter. example : fluoropolymer tube, Ø 6 mm , at 20°C, maximum pressure = 20 bar



to calculate burst pressure, the values in the above graph should be multiplied x 3

1005T-1025T 🕅 fluoropolymer FEP 140 tube

o.d. tube mm	i.d. tube mm	R minimum bend radius for tube at 20° C (in mm)	in 5 m rolls white	<mark>∕kg</mark> ∕ per 5 m	in 25 m rolls white	<mark>∕kg</mark> ∕ per 25 m
4	2,5	40	1005T04 00 25	0,155	1025T04 00 25	0,506
6	4	50	1005T06 00	0,250	1025T06 00	1,027
8	6	70	1005T08 00	0,385	1025T08 00	1,431
10	8	120	1005T10 00	0,524	1025T10 00	1,693
12	10	180	1005T12 00	0,547	1025T12 00	1,913

 \mathbf{y} = suitable for food applications

main advantages of Legris fluoropolymer FEP 140 tube

- excellent resistance to chemicals and high temperature
- FDA approved (food quality)
- good abrasion resistance

- excellent UV resistance
- delivered in tubepack[®] boxes for protection

technical tubes and hoses close tolerance flexible polyester polyurethane twin tubing



Technical characteristics of Legris flexible polyurethane twin tubing are the same as for Legris polyurethane tubing. Please refer to page K10.

Legris flexible polyurethane twin tubing maintains the smooth surface of both tubes when separated and keeps the characteristics of their dimension.

Its use enables :

- swift and easy assembly •
- compactness of circuitry •
- differentiation of circuits, via two colours

o.d. of tube	toleranc on o.d.	es	Connected to Legris instant fittings, the calibration of Legris flexible
4 to 8 mm	+0,10	-0,10	polyurethane twin tubing ensures
			optimum sealing.

1420U flexible polyester polyurethane twin tubing, 25m roll

o.d. tube mm	R minimum i.d. bend		Part numbers for flexible polyurethane twin tubing in 25m rolls				
	tube mm	radius for tube at 20° C (in mm)			5	for 25 m	
4	2,5	10	1420U04 11	1420U04 44	1420U04 41	0,620	
6	4	15	1420U06 11	1420U06 44	1420U06 41	1,182	
8	5,5	20	1420U08 11	1420U08 44	1420U08 41	1,942	

close tolerance semi-rigid nylon multitube



Technical characteristics of Legris nylon multitube are the same as for Legris semi-rigid nylon tubing. Please refer to page K8.

Legris semi-rigid nylon multitube is suited to pneumatic circuits submitted to external aggression. Its PVC sheath is resistant to abrasion, spark projections, caustic fluids, oils, alcohol etc. The special design sheath and spiral assembly ensure a small bend radius for compact and flexible cabling. For fast identification of circuits, tubes are numbered from 1 to 12 and 6 colours are available.

o.d. of tube	tolerand on o.d.	es	Connected to Legris instant fittings, the calibration of Legris
4 mm	+0,05	-0,08	nylon multitube ensures
6 to 8 mm	+0,05	-0,1	optimum sealing.

1050P-1010P semi-rigid nylon multitube

o.d. x i.d. æmi-rigid nylon (mm)	R minimum bend radius at 20° C (mm)	number of tubes	supplied in 50 metre rolls	<mark>∆kg∆</mark> for 50 m
4x2,7	20	2	1050P04 00M02	4,400
4x2,7	35	4	1050P04 00M04	6,600
4x2,7	45	7	1050P04 00M07	8,200
4x2,7	55	12	1050P04 00M12	15,200
6x4	45	2	1050P06 00M02	8,400
6x4	55	4	1050P06 00M04	11,500
6x4	60	7	1050P06 00M07	12,500
8x6	45	2	1050P08 00M02	13,000
	0.d. x i.d. emi-rigid nylon (mm) 4x2,7 4x2,7 4x2,7 4x2,7 6x4 6x4 6x4 8x6	A. Xi.d. minimum mylon (mm)R bend radius at 20° C (mm)4x2,7204x2,7354x2,7454x2,7556x4456x4556x4608x645	Ded. xi.d. minimum nylon (mm)R bend radius at 20°C (mm)number of tubes4x2,72024x2,73544x2,73544x2,755126x44526x45546x46078x6452	R number of softward of supplied in 50 metre rolls supplied in 50 metre rolls 4x2,7 20 2 1050P04 00M02 4x2,7 35 4 1050P04 00M04 4x2,7 45 7 1050P04 00M07 4x2,7 55 12 1050P04 00M01 6x4 45 2 1050P04 00M02 6x4 45 2 1050P06 00M02 6x4 60 7 1050P06 00M07 8x6 45 2 1050P06 00M07

Please refer to section A for further details of Legris LF 3000® Multi-Connectors.

o.d. PVC sheath (mm)	o.d. x i.d. semi-rigid nylon (mm)	R minimum bend radius at 20° C (mm)	number of tubes	supplied in 10 metre rolls	<mark>∆kg∆</mark> for 10 m		
13,5	4x2,7	35	4	1010P04 00M04	1,440		
16	4x2,7	45	7	1010P04 00M07	1,920		
18,5	6x4	55	4	1010P06 00M04	2,300		
22	6x4	60	7	1010P06 00M07	2,900		
19,2	8x6	45	2	1010P08 00M02	2,600		
colour choice							

 \bigcirc

technical tubes and hoses close tolerance nylon recoil tubing



Technical characteristics of Legris nylon recoil tubing also depend on the type of connection used.

pressure and temperature resistance of Legris nylon recoil tubing

In the adjacent graph, each curve represents the acceptable maximum working pressure at a given temperature, by diameter. example : nylon recoil tube, \emptyset 4x6, at 20°C, maximum working pressure = 20bar Legris nylon recoil tubing ensures that the coil will continue to contract after multiple use. Assembled with male stud 1/4" BSP taper fittings, it is ready for immediate use. Protection springs are fitted to prevent the ends of the tubing from becoming damaged.

With a surface hardness of 60° shore D, it conforms to NF E49-100 standard.

O.D.	tolerances	
of tube	on o.d.	
6 to 8 mm	+0,05	-0,1



to calculate burst pressure, the value in the above graph should be multiplied x 3

1470P nylon recoil tubing, 2 metres, with 1/4" BSP taper fitting

o.d. tube mm	i.d. tube mm	2 metres re	coil tubing			∆kg∆
			1			
6	4	1470P06 04 13	1470P06 07 13	120	60	0,143
8	6	1470P08 04 13	1470P08 07 13	160	70	0,174

1471P nylon recoil tubing, 4 metres, with 1/4" BSP taper fitting

o.d. tube mm	i.d. tube mm	4 metres re	ecoil tubing	000000		∆kg∆
			2			
6	4	1471P06 04 13	1471P06 07 13	240	60	0,199
8	6	1471P08 04 13	1471P08 07 13	320	70	0,249

1472P nylon recoil tubing, 6 metres, with 1/4" BSP taper fitting

o.d.	i.d.	6 metres r	ecoil tubing	000000		
mm	mm					090
6	4	1472P06 04 13	1472P06 07 13	360	60	0,260
8	6	1472P08 04 13 1472P08 07 13		480	70	0,329
dimen symbo recoil	ision ols for Le tubing	egris	service length (in mm)	total closed length (in mm)	Ø OD of coil (in mm)	
Service	Service length = maximum recommended operating length in order to ensure that the coil will continue to contract after multiple use.					

technical tubes and hoses close tolerance polyester polyurethane recoil tubing



Technical characteristics of Legris polyurethane recoil tubing also depend on the type of connection used.

pressure and temperature resistance of Legris polyester polyurethane recoil tubing

In the adjacent graph, each curve represents the acceptable maximum working pressure at a given temperature, by diameter. example : polyurethane recoil tube, Ø4x6, at 20°C, maximum working pressure = 9 bar

Legris polyester polyurethane recoil tubing is perfectly suited for installations requiring flexibility within a reduced space, thanks to its small coil diameters. Straightened extremities and good resistance to shocks and abrasion enable safe and easy manipulation of pneumatic machinery. With a surface hardness of 52° shore D, it conforms to NF E49-

101 standard.

O.D. of tube	tolerances on o.d.			
4 to 8 mm	+0,10	-0,10		
10 to 12 mm	+0,15	-0,15		



1470U polyester polyurethane recoil tubing, 2 m long, with BSPT thread connections

o.d.	i.d.	BSPT thread	Polyurethane recoil tubing, 2 m long		000000	length of long straight	length of short straight		~ 	
mm	mm		2	Ē.	2		section in mm	section in mm	-11111112 +	∐kg
4	2,5	R1/8	1470U04 03 10	1470U04 04 10	1470U04 05 10	190	300	100	24	0,060
6	4	R1/4	1470U06 03 13	1470U06 04 13	1470U06 05 13	230	300	100	32	0,120
8	5	R1/4	1470U08 03 13	1470U08 04 13	1470U08 05 13	190	500	100	42	0,160
10	7	R1/4	1470U10 03 13	1470U10 04 13	1470U10 05 13	190	500	100	62	0,190
12	8	R3/8	1470U12 03 17	1470U12 04 17	1470U12 05 17	200	500	100	65	0,220

1471U polyester polyurethane recoil tubing, 4 m long, with BSPT thread connections

o.d. tube	i.d. tube	BSPT thread	Polyurethane recoil tubing, 4 m long				length of long straight	length of short straight	amma t	
mm	mm			Ł		000000	in mm	in mm	_000000	
4	2,5	R1/8	1471U 04 03 10	1471U04 04 10	1471U04 05 10	390	300	100	24	0,100
6	4	R1/4	1471U 06 03 13	1471U06 04 13	1471U06 05 13	480	300	100	32	0,160
8	5	R1/4	1471U08 03 13	1471U08 04 13	1471U08 05 13	400	500	100	42	0,200
10	7	R1/4	1471U10 03 13	1471U10 04 13	1471U10 05 13	400	500	100	62	0,230
12	8	R3/8	1471U12 03 17	1471U12 04 17	1471U12 05 17	400	500	100	65	0,260

1472U polyester polyurethane recoil tubing, 6 m long, with BSPT thread connections

	-	-			-	-				
o.d.	i.d. BSI	BSPT	Polyurethane recoil tubing, 6 m long			length of long straight	length of short straight			
tube tul mm m	mm	thread		L	2	-1111111	section in mm	section in mm	-mme t	
8	5	R1/4	1472U08 03 13	1472U08 04 13	1472U08 05 13	650	500	100	42	0,280
10	7	R1/4	1472U10 03 13	1472U10 04 13	1472U10 05 13	680	500	100	62	0,295
12	8	R3/8	1472U12 03 17	1472U12 04 17	1472U12 05 17	700	500	100	65	0,310

dimension symbols for Legris recoil tubing



total closed length in mm

O.d. of coil

Service length : maximum recommended operating length in order to ensure that the coil will continue to contract after multiple use.

technical tubes and hoses close tolerance polyester polyurethane recoil tubing – without connectors



Technical characteristics of Legris polyester polyurethane recoil tubing also depend on the type of connection used.

pressure and temperature resistance of Legris close tolerance polyester polyurethane recoil tubing - without connectors

In the adjacent graph, each curve represents the acceptable maximum working pressure at a given temperature, by diameter, Ex: polyurethane recoil tubing, \emptyset 8x12, at 20°C, maximum working pressure = 9 bar

Legris **polyester polyurethane recoil tubing – without connectors** is perfectly suited for installations requiring flexibility within a reduced space, thanks to its small coil diameters. Perfectly suited to Legris push-in fittings with protection rings, it enables safe and easy manipulation of pneumatic machinery.

With a surface hardness of 52° shore D, conforming to NFE 49.101 standard.

O.D. of tube	tolerances on o.d.		
8 mm	+0,10	-0,10	
10 to 12 mm	+0,15	-0,15	



1460U polyester polyurethane recoil tubing –without connectors, 2m long

o.d. tube mm	i.d. tube mm	polyurethane recoil tubing –without connectors, 2m long		length of long straight section in mm	length of short straight section in mm	-00000- ‡	∆ <mark>kg</mark> ∆
8	5	1460U08 04	190	500	100	42	0,064
10	7	1460U10 04	190	500	100	62	0,122
12	8	1460U12 04	200	500	100	65	0,172

1461U polyester polyurethane recoil tubing –without connectors, 4m long

						-	
o.d.	i.d.	polyurethane recoil tubing –without connectors, 4m long		length of long straight	length of short straight		<u> </u>
mm	mm		-1111111-	section in mm	section in mm	-mmr t	∆kg∂
8	5	1461U08 04	400	500	100	42	0,128
10	7	1461U10 04	400	500	100	62	0,244
12	8	1461U12 04	400	500	100	65	0,344

1462U polyester polyurethane recoil tubing –without connectors, 6m long

o.d. tube mm	i.d. tube mm	polyurethane recoil tubing –without connectors, 6m long		length of long straight section in mm	length of short straight section in mm	-00000-1	∆kg∆
8	5	1462U08 04	650	500	100	42	0,192
10	7	1462U10 04	680	500	100	62	0,246
12	8	1462U12 04	700	500	100	65	0,280



technical tubes and hoses push-in fittings with protection springs



Legris push-in fittings with protection springs comprise LF3000[®] fittings and a polymer protection spring. Used in conjunction with polyurethane recoil tubing – without connectors, they prevent damage to equipment and tubing.

fluid: compressed air

working pressure: 1 to 20 bar

working temperature: - 20° to + 60°C constituent materials:

- protection spring: reinforced polymer
- fitting: nickel-plated brass
- models BSP parallel: **sealing 'O' ring**: nitrile
- models BSP taper: thread: precoating

0694 push-in fitting with protection spring, BSP parallel



С	ØD	2	E	F	G	L	∆kg∆
G1/4	8	0694 08 13	6,5	16	24	104,5	0,101
G1/4	10	0694 10 13	6,5	18	24	106,5	0,105
G3/8	12	0694 12 17	7,5	20	29,5	126	0,106

0695 push-in fitting with protection spring, BSP taper



L
ØD OF

С	ØD	2	F	G	L	∆kg∆
R1/4	8	0695 08 13	14	24	104,5	0,101
R1/4	10	0695 10 13	18	24	106,5	0,105
R3/8	12	0695 12 17	20	29,5	126	0,106

You will also find in the Quick Acting Couplers section, C 9000 probes and bodies suitable for use with polyurethane recoil tubing – without connectors.



technical tubes and hoses anti-spark tubing



Legris anti-spark tubing conforms to UL94 VO standard and is suitable for installations submitted to aggressive environments, providing resistance to spark projections.

3 types of tubing are available:

- nylon tubing: designed with a PVC sheath and semi-rigid nylon tubing (tolerance 1 mm +/-0,1), providing excellent resistance to spark projections and high pressure. Perfectly adapted for use with Legris LF 6000 instant anti=spark fittings.
- polyurethane tubing: designed with a PVC sheath and polyether polyurethane tubing (tolerance 1 mm +/-0,1), providing excellent resistance to spark projections and high pressure. Perfectly adapted for use with Legris LF 6000 instant anti-spark fittings.
- single layer polyether polyurethane tubing: provides excellent humidity and spark projection resistance. Perfectly suitable for use with Legris LF 3600 instant fittings.



anti-spark nylon tubing



pressure and temperature resistance of antispark tubing

In the adjacent graph, each curve represents the acceptable maximum pressure at a given temperature, by diameter, Ex: polyurethane tubing, Ø 7x10, at 20°C, maximum pressure = 12 bar



to calculate burst pressure, the values in the above graph should be multiplied x 3

anti-spark polyurethane tubing



to calculate burst pressure, the values in the above graph should be multiplied x 3

For correct use of anti-spark polyurethane tubing at high temperatures and pressures, we recommend the use of a ferrule (see model 0127 at the end of this section).



anti-spark tubing

1025P..V - **1100P.**.V anti-spark nylon tubing

o.d. tube mm	i.d. tube mm	R minimum bend radius for tube at 20° C (in mm)	in 25 m rolls	<mark>∆kg∆</mark> for 25 m	in 100 m rolls	<mark>∆kg∆</mark> for 100 m			
6	4	25	1025P06V01	1,240	1100P06V01	4,980			
8	6	30	1025P08V01	1,700	1100P08V01	6,450			
10	8	55	1025P10V01	2,030	1100P10V01	1,600			
12	10	70	1025P12V01	2,330	1100P12V01	9,460			

On request, anti-spark polyurethane tubing can be provided in green, red or blue coloured sheaths. Do not hesitate to contact us.

1025U..V - 1100U..V anti-spark polyurethane tubing

o.d. tube mm	i.d. tube mm	R minimum bend radius for tube at 20° C (in mm)	in 25 m rolls	<mark>∆kg∆</mark> for 25 m	in 100 m rolls	<mark>∆kg</mark> ∆ for 100 m
6	4	15	1025U06V01	1,200	1100U06V01	5,370
8	5,5	20	1025U08V01	1,620	1100U08V01	7,630
10	7	25	1025U10V01	2,900	1100U10V01	10,860
12	8	35	1025U12V01	4,030	1100U12V01	15,000

On request, anti-spark polyurethane tubing can be provided in green, red or blue coloured sheaths. Do not hesitate to contact us.

1025U..K - **1100U..K** anti-spark single layer polyurethane tubing

o.d. tube mm	i.d. tube mm	R minimum bend radius for tube at 20° C (in mm)	in 25 m rolls	∆ <mark>kg</mark> ∆ for 25 m	in 100 m rolls	<mark>∆kg</mark> ∆ for 100 m
4	2,5	10	1025U04K01	0,230	1100U04K01	0,900
6	4	15	1025U06K01	0,580	1100U06K01	2,320
8	5,5	20	1025U08K01	0,860	1100U08K01	3,030
10	7	25	1025U10K01	1,230	1100U10K01	5,100
12	8	35	1025U12K01	2,080	1100U12K01	8,600

On request, anti-spark polyurethane tubing can be provided in green, red or blue coloured sheaths. Do not hesitate to contact us.

6000 stripping tool





2	
6000 71 00	0,095

This tool allows easy stripping of the outer tube sleeve.





technical tubes and hoses self-fastening hose



technical conditions of use

• installation / dismantling

Assembly is simple and easy and no collar, no additive (grease, oil...etc) nor preparation time is required.

For correct connection, push the tube fully home against the shoulder of the fitting.

Dismantling should be done by cutting the tube with a knife on the barbed side of the fitting.

• a single installation tool for all models



An automatic installation tool that reduces the effort required to connect self-fastening hose onto a barbed sleeve. It is easy to manipulate and has been designed for use with five different diameters. Do not hesitate to contact us for further details. Legris self-fastening hose is constructed with NBR nitrile rubber reinforced with a textile braid on both inner and outer layers. It is designed for automobile process equipment (CNOMO E07.21115N) both for cooling circuits and for many general pneumatic installations.

Used with Legris quick barbed fittings (chapter D) this new range of tubing provides both reliability of self-fastening technology and simplicity of installation.

temperature and pressure resistance of Legris self-fastening hose



use with water : maximum temperature : 100°C use with air : maximum temperature : 70°C

- main advantages of Legris self-fastening tubing • reliable technology, easy installation
- ozone resistant :
 - external resistance conforms to NFT 46019
- internal resistance conforms to NFT 47252

- guaranteed silicone free
- excellent resistance to hydrocarbons, UV, welding sparks and abrasion
- available in 4 standard colours
- packed on drums for easy handling (1020H models packed in tubepack

 B boxes)

self-fastening hose

1020H self-fastening hose

F	M	i.d.	o.d.	R min. bend	Max. working	burst pressure	self-fastening ho	ose, in 20 m rolls
	/14	mm	mm	at 20°C (mm)	in bar at 20°C	in bar at 20°C		
1/4	6	6,3	13	60	16	60	1020H56 02	1020H56 03
3/8	8	9,5	16	70	16	60	1020H60 02	1020H60 03
1/2	12	12,7	19	120	16	60	1020H62 02	1020H62 03
5/8	16	15,9	23	140	16	60	1020H66 02	1020H66 03
3/4	20	19,1	27	170	16	60	1020H69 02	1020H69 03

1040H self-fastening hose

	DI		i.d.	o.d.	R min. bend	Max. working	burst pressure	self-fastening hose, in 40 m rolls					
	DI	v	mm	m mm at 20 (mn	at 20°C (mm)	in bar at 20°C	in bar at 20°C	2	1	1	1		
ŀ	1/4	6	6,3	13	60	16	60	1040H56 01	1040H56 02	1040H56 03	1040H56 04		
1	3/8	8	9,5	16	70	16	60	1040H60 01	1040H60 02	1040H60 03	1040H60 04		
ŀ	1/2	12	12,7	19	120	16	60	1040H62 01	1040H62 02	1040H62 03	1040H62 04		
1	5/8	16	15,9	23	140	16	60	1040H66 01	1040H66 02	1040H66 03	1040H66 04		
1	3/4	20	19,1	27	170	16	60	1040H69 01	1040H69 02	1040H69 03	1040H69 04		

1080H self-fastening hose

DN	i.d.	o.d.	R min. bend	Max. working	burst pressure	self-fastening hose, in 80 m rolls					
DN	mm	mm	at 20°C (mm)	c in bar at 20°C	in bar at 20°C	2	1	2	Ł		
5/8 16	15,9	23	140	16	60	1080H66 01	1080H66 02	1080H66 03	1080H66 04		
3/4 20	19,1	27	170	16	60	1080H69 01	1080H69 02	1080H69 03	1080H69 04		

1100H self-fastening hose

n	N	i.d.	o.d.	R min. bend	Max. working	burst pressure	self-fastening hose, in 100 m rolls					
DN		mm	mm	at 20°C (mm)	in bar at 20°C	in bar at 20°C		1	2			
1/4	6	6,3	13	60	16	60	1100H56 01	1100H56 02	1100H56 03	1100H56 04		
3/8	8	9,5	16	70	16	60	1100H60 01	1100H60 02	1100H60 03	1100H60 04		
1/2	12	12,7	19	120	16	60	1100H62 01	1100H62 02	1100H62 03	1100H62 04		

3000 71 11 tube cutter for self-fastening hoses



2	$\Delta kg \Delta$
3000 71 11	0,227

for hoses from o.d. 12 to 25 mm. spare blade: 3000 71 11 05

technical tubes and hoses braided PVC hose



Technical characteristics of Legris braided PVC hose also depend on the type of connection used.

pressure and temperature resistance of Legris braided PVC hose

In the adjacent graphic, each curve represents the acceptable maximum pressure at a given temperature, by diameter. example : braided PVC hose, o.d. 13, at 20°C, maximum pressure = 15 bar Translucent Legris braided PVC hose comprises a polyester fibre mesh sandwiched between two layers of polymer. It has a wide variety of applications.

It is food quality and is suitable for use with milk, beer, water, wine, etc.

It is translucent which allows a visual check on fluid flow, cleanliness inside the tube, airlocks etc.



to calculate **burst pressure**, the values in the above graph should be multiplied x 3

o.d. i.d. bend tube tube radius mm mm for tub at 20° ((in mm		R minimum bend	Braided PVC hose in 25 m rolls		Braided PVC hose in 50 m rolls	 ∆kg∆
		for tube at 20° C (in mm)		for 25 m		for 50 m
8	4	10	1025V08 00 04	1,260	1050V08 00 04	2,500
11	6	12	1025V11 00 06	2,100	1050V11 00 06	4,200
13	7	14	1025V13 00 07	2,820	1050V13 00 07	5,600
14	8	16	1025V14 00 08	3,065	1050V14 00 08	6,000
16	10	25	1025V16 00 10	3,200	1050V16 00 10	6,400
18	12	30	1025V18 00 12	4,120	1050V18 00 12	8,250
23	15	40	1025V23 00 15	6,300	1050V23 00 15	12,600
26	19	60	1025V26 00 19	7,800	1050V26 00 19	15,600

1025V-1050V There and 50 metre rolls

= suitable for food applications

We recommend the use of hose clip 0697 (page K25) when PVC braided hose is connected to a barbed fitting

advantages of Legris braided PVC hose

- food quality
- translucent for visual checking of fluid flow
- flexibility

- good ageing
- numerous applications

technical tubes and hoses accessories

Clip clip strips for tubes





ØD	2	н	К	Ν	Number of clips per strip	∆kg∆
4	Clip 04 00	9	13,5	10,5	8	0,008
6	Clip 06 00	10,5	13	10,5	8	0,009
8	Clip 08 00	12,5	10,5	12	7	0,009
10	Clip 10 00	14	12	15	6	0,010
12	Clip 12 00	16,5	14	16,5	5	0,011
14	Clip 14 00	18	16	20,5	4	0,011

Delivered in boxes of 10 strips of the same diameter (complete with self-tapping screws of 9.5 mm length).

3000 71 00 tube cutter





2	Н	L	∆kg∆
3000 71 00	25	79	0,029

This tool will cut all resilient plastic tube (e.g. nylon, FEP 140, polyurethane, braided PVC, soft rubber, etc.) from 4mm to 14mm diameter inclusive. It is designed to give a clean cut at right angles to the tube axis. A spring maintains the cutter in the closed position. Replacement blades are available - part number 3000 71 00 05 - see page K23

0697 clip for PVC braided tube





ØD	2	Н	К	L	L1	∆kg∆
8	0697 00 01	7	5	12	7	0,003
10	0697 00 02	12	9	21	13	0,010
11	0697 00 02	12	9	21	13	0,010
13	0697 00 02	12	9	21	13	0,010
15	0697 00 03	12	9	24	13	0,013
18	0697 00 03	12	9	24	13	0,013
21	0697 00 04	12	9	24	13	0,014
26	0697 00 05	12	9	24	13	0,014

0127 ferrule for plastic tube



ØD1	ØD2	L	∆kg∆	12	8	0127 12 08	0,002
4	2	0127 04 00	0,001	12	9	0127 12 09	0,002
4	2,7	0127 04 27	0,001	12	10	0127 12 00	0,002
5	3	0127 05 03	0,001	14	11	0127 14 11	0,003
5	3,3	0127 05 00	0,001	14	12	0127 14 00	0,003
6	4	0127 06 00	0,001	15	12	0127 15 12	0,003
8	5,5	0127 08 55	0,001	16	13	0127 16 13	0,003
8	6	0127 08 00	0,001	18	14	0127 18 14	0,004
10	7	0127 10 07	0,002	20	15	0127 20 15	0,004
10	7,5	0127 10 75	0,002	22	16	0127 22 16	0,005
10	8	0127 10 00	0,002	25	19	0127 25 19	0,005

This ferrule guarantees good gripping, at high temperatures and pressures, by preventing collapsing of the tube.

1827 ferrule for fluoropolymer tubing





ØD	1 ØD2	2	L	∆kg∆
6	4	1827 06 00	11,5	0,001
8	6	1827 08 00	14	0,001
10	8	1827 10 00	18	0,002
12	10	1827 12 00	18	0,002
16	14	1827 16 00	18	0,003

This ferrule is necessary when using fluoropolymer FEP 140 at all temperatures compatible with the fitting/tube assembly.

Legris clips are designed to fix Legris tubing in the minimum of space. Their presentation in strips, which can be separated either by hand or with a tube cutter, enables the use of 1 to 8 clips depending on the user's needs.



technical tubes and hoses application table for Legris nylon and polyurethane tubing

- 1 recommended
- 2 satisfactory
- 3 inappropriate

NYLON TUBING

	at 20° C		at 20° C
Acetaldehyde	1	Kerosene	1
Acetone	1	Methane	1
Acetylene	1	Methyl Acetate	1
Benzene	1	Methyl Alcohol (pure)	1
Bleach	2	Methyl Bromide	1
Bromine	3	Methyl Chloride	1
Butane	1	Methyl Ethyl Ketone	1
Butyl Acetate	1	Methyl Isobutyl Ketone	1
Butylic Alcohol	1	Oxygen	1
C alcium Chloride	1	Ozone	2
Carbon Tetrachloride	3	Perchlorate Ethylene	2
Chloride	3	Phenols	3
Chromic Acid 10%	3	Phosphoric Acid 50 %	1
Citric Acid	1	Potash 50 %	1
Concentrated Ammonia	1	Potassium Nitrate	1
Copper Sulphate	1	Potassium Sulphate	1
Cutting Oils	1	Propane	1
Cyclohexane	1	S oda 50 %	1
Cyclohexanone	1	Sodium Carbonate	1
Diesel Oil	1	Sodium Chloride	1
Ethyl Acetate	1	Sulphuric Acid 10%	1
Ethyl Alcohol (pure)	1	Sulphurous Anhydride	2
Ethyleneoxide	1	Supergrade Petrol	1
F reon 12-22	1	Toluene	1
Formalin	1	TributyIphosphate	1
G aseous Ammonia	1	Trichlorethane	1
Glucose	1	Trichlorethylene	2
Hydrochloric Acid 10 %	1	Water	1
Hydrogen	1	Xylem	1
Hydrogen Peroxide	1	Zinc Chloride	1

technical tubes and hoses application table for Legris nylon and polyurethane tubing

- 1 recommended
- 2 satisfactory
- 3 inappropriate

POLYURETHANE TUBING

	Polyether base at 20°C	Polyester base at 20 °C
Acetic Acid	1	3
Acetone	3	1
Ammonia	1	3
Ammonium Chloride 10 %	1	1
ASTM – Fuel oil A	1	1
ASTM – Fuel oil B	2	1
ASTM – Fuel oil C	2	1
ASTM – Oil 1	1	1
ASTM – Oil 2	1	1
ASTM – Oil 3	1	1
Benzene	3	3
Butane	1	1
Butyl Acetate	3	2
Butyl Alcohol	2	2
C arbon Tetrachloride	3	2
Caustic Soda	1	2
Chloroform	3	3
Chromic Acid 3n	3	3
Cyclohexanone	3	3
Diesel Oil	1	1
Distilled Water	1	2
Ethanol	2	2
Ethyl Acetate	2	2
F reon 12-22	2	2
G lycol Without H ₂ 0	1	1
Hexachloride	2	1
Hydrochloric Acid 3n	1	3
Hydrogen Peroxide 3 %	1	1
Kerose N	1	1
M agnesium Chloride 10 % and 30 %	1	2

technical tubes and hoses application table for Legris nylon and polyurethane tubing

- 1 recommended
- 2 satisfactory
- 3 inappropriate

POLYURETHANE TUBING

	Polyether base at 20°C	Polyester base at 20 °C
Methane	1	1
Methanol	1	3
Methyl Acetate	2	2
Methyl Ethyl Ketone	3	3
Methyl Glycol	3	3
Nitric Acid 3n	3	3
Ozone	1	1
Paraffin Oil	1	1
Perchlorate Ethylene	2	2
Phosphoric Acid 3n	2	3
Potassium Chloride 10 % and 40 %	1	2
Potassium Manganate 5 %	3	2
Propane	1	1
Sea Water	1	2
Sodium Chloride	1	2
Sulphuric Acid 3n maxi 10 %	1	3
Sulphuric Acid 13 PH	2	3
Tetrachloroethylene	2	2
Toluene	2	2
Trichlorethylene	3	3
Xylem	2	2



