

Plastic tubing PLN

FESTO



Characteristics

At a glance

Resistant to common cleaning agents and lubricants and FDA-compliant.

- Polyethylene
- High resistance to chemicals, microbes and hydrolysis
- For food-safe grade, see www.festo.com/certificates/PLN
- Resistant to most cleaning agents and lubricants
- Operating medium: compressed air, vacuum, water

Additional documents

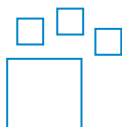
[Link](#) [pln](#)



The additional document TUBING-ADD contains further information on application details, such as tubing/fitting combinations, installation instructions and measurement procedures.

Ordering data - modular system

[Link](#) [pln](#)



Configurable product

This product and all its product options can be ordered online via the configurator.

Engineering tools

[Link](#) [engineering tools](#)



Save time with engineering tools: Smart engineering for the optimal solution. Our goal is to increase your productivity. Our engineering tools play an integral part in achieving this goal. They help you size your system correctly, tap into unimagined productivity reserves and generate additional productivity along the entire value chain. In every phase of your project, from the initial contact to the modernisation of your machine, you will come across a number of different tools that will be of use to you.

- Flow calculation: Determine the nominal flow rate by entering parameters such as input pressure, output pressure, tube length and internal diameter (www.festo.com/x/flowrate-calculation).
- Media resistance: Evaluate the resistance of various types of materials and tubing from Festo to different chemicals and media (www.festo.com/x/media-resistance).

Diagrams

[Link](#) [pln](#)



The diagrams shown in this document are also available online. These can be used to display precise values.

Pipe/tubing O.D. x wall thickness

For standard O.D. tubing, the outside diameter of the tube and the wall thickness are given as the tube size.

Packaging unit [m]

Standard: 50 m

Type code

001	Series	
PLN	Plastic tubing, polyethylene, standard O.D.	
002	Pipe/tubing O.D. x wall thickness	
4x0,75	4x0.75 mm	
6x1	6x1 mm	
8x1,25	8x1.25 mm	
10x1,5	10x1.5 mm	
12x1,75	12x1.75 mm	
14x2	14x2 mm	
16x2	16x2 mm	

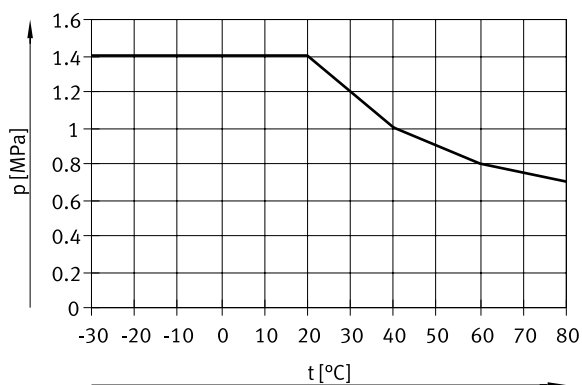
003	Colour	
BL	Blue	
NT	Natural	
RT	Red	
SI	Silver	
SW	Black	

Datasheet

Operating and environmental conditions							
Outside diameter	4 mm	6 mm	8 mm	10 mm	12 mm	14 mm	16 mm
Inside diameter	2.9 mm	4 mm	5.9 mm	7 mm	8.4 mm	10 mm	12 mm
Pneumatic connection	For push-in connector O.D. 4 mm For push-in connector outside diameter of 5/32" For barbed fitting I.D. 3 mm with union nut For barbed fitting I.D. 3 mm	For push-in connector O.D. 6 mm For barbed fitting I.D. 4 mm with union nut For barbed fitting I.D. 4 mm	For push-in connector O.D. 8 mm For push-in connector outside diameter of 5/16" For barbed fitting inside diameter of 6 mm with union nut For barbed fitting inside diameter of 6 mm	For push-in connector O.D. 10 mm	For push-in connector outside diameter of 12 mm	For push-in connector outer diameter of 14 mm	For push-in connector O.D. 16 mm
Flow-relevant bending radius	25 mm	32 mm	50 mm	57 mm	65 mm	80 mm	95 mm
Min. bending radius	12 mm	11 mm	23 mm	22 mm	23 mm	40 mm	55 mm
Product weight according to length	0.0056 kg/m	0.0147 kg/m	0.0214 kg/m	0.0375 kg/m	0.054 kg/m	0.07 kg/m	0.082 kg/m
Temperature-dependent operating pressure	-0.095 ... 1.4 MPa						
Temperature-dependent operating pressure	-0.95 ... 14 bar						
Temperature-dependent operating pressure	-13.775 ... 203 psi						
Note on operating pressure	Water: max. 0.8 MPa at 0 - 50°C						
Operating medium	Compressed air to ISO 8573-1:2010 [7:-:-] Water (liquid, ice-free)						
Suitable for use with food ¹⁾	See supplementary material information						
Ambient temperature	-30 ... 80°C						
Approval	German Technical Control Board (TÜV)						
Certificate issuing authority	B 013277 0527 00						

1) Further information www.festo.com/catalogue/pln → Support/Downloads.

Operating pressure p as a function of temperature t



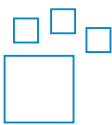
Materials

Material tubing	Packaging unit
Note on materials	RoHS compliant
LABS (PWIS) conformity	VDMA24364-B2-L
Cleanroom suitability, measured according to ISO 14644-14	Element installed statically, no meaningful evaluation possible according to ISO 14644-1

Ordering data

Ordering data						
	Outside diameter	Packaging unit [m] ¹⁾	Product weight according to length	Colour	Part no.	Type
	4 mm	50 m	0.006 kg/m	Blue	558205	PLN-4X0,75-BL
				Natural	193403	PLN-4X0,75-NT
				Red	558217	PLN-4X0,75-RT
				Black	195280	PLN-4X0,75-SW
				Silver	558211	PLN-4X0,75-SI
	6 mm		0.015 kg/m	Blue	558206	PLN-6X1-BL
				Natural	193404	PLN-6X1-NT
				Red	558218	PLN-6X1-RT
				Black	195281	PLN-6X1-SW
				Silver	558212	PLN-6X1-SI
	8 mm	Standard	0.021 kg/m	Blue	558207	PLN-8X1,25-BL
				Natural	193405	PLN-8X1,25-NT
				Red	558219	PLN-8X1,25-RT
				Black	195282	PLN-8X1,25-SW
				Silver	558213	PLN-8X1,25-SI
	10 mm		0.037 kg/m	Blue	558208	PLN-10X1,5-BL
				Natural	193406	PLN-10X1,5-NT
				Red	558220	PLN-10X1,5-RT
				Black	195283	PLN-10X1,5-SW
				Silver	558214	PLN-10X1,5-SI
	12 mm		0.054 kg/m	Blue	558209	PLN-12X1,75-BL
				Natural	193407	PLN-12X1,75-NT
				Red	558221	PLN-12X1,75-RT
				Black	195284	PLN-12X1,75-SW
				Silver	558215	PLN-12X1,75-SI
	14 mm		0.07 kg/m	Natural	570424	PLN-14X2-NT
				Black	570423	PLN-14X2-SW
	16 mm		0.082 kg/m	Blue	558210	PLN-16X2-BL
				Natural	539064	PLN-16X2-NT
				Red	558222	PLN-16X2-RT
				Black	539065	PLN-16X2-SW
				Silver	558216	PLN-16X2-SI

1) Standard: 50 m

Ordering data – Modular product system			
	Short type code	Part no.	Type
	PLN	553850	PLN