

Overview plastic tubing, standard O.D. (inch) and additional information

FESTO



Product range overview

Version	Type	O.D. [inch]	Colour									Operating medium		
			Silver	Blue	Black	Yellow	Green	Red	Brown	White	Natural	Compressed air	Vacuum	Water
	PEN Polyethylene	(5/32) ¹⁾ , 3/16, 1/4, 5/16, 3/8, 1/2, 5/8	(■) ¹⁾	■	■	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	■	■	■
	PLN Polyethylene	(5/32) ¹⁾ , 3/16, 1/4, 5/16, 3/8, (1/2) ¹⁾ , 5/8	(■) ¹⁾	■	■	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	■	■	■	–
	PUN-H Polyurethane	1/8, 5/32, 3/16, 1/4, 5/16, 3/8, 1/2, 5/8	■	■	■	■	■	■	■	■	■	■	■	–

1) Please note the information below.



Note

Product options in brackets can only be ordered using the modular product system.

Please note the minimum order quantity of 10000 ft.

There is a modular product system for plastic tubing:

- PEN
- PLN
- PUN

Product range overview

Type	Food-safe	Halogen-free	Contact with electrical cables	PWIS-free to FN 942 010	Suitable for use with energy chains	Resistance				Flexible	Shore hardness ³⁾
						Chemicals	Microbes	UV radiation	Hydrolysis		
PEN	–	■	■	■	+++	++	++	++ ²⁾	+++	++	D 52 ±3
PLN	■	■	■	■	–	++	++	++ ²⁾	+++	+	D 52 ±3
PUN-H	■	■	■	■	++	+	++	++ ²⁾	++	+++	D 52 ±3

+++ Extremely suitable

++ Very suitable

+ Limited suitability (on request)

– Not suitable

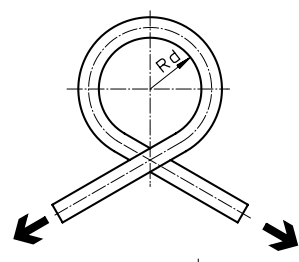
2) Applies to the colour black

3) Values are determined using test panels. Values determined using tubing may vary.

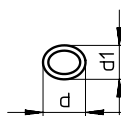
Measurement method

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Flow-relevant bending radius R_d



The tube is bent in the direction of its own curve until the tubing outside diameter is flattened by 5%. R_d is then calculated mathematically. The flow rate is not reduced until R_d is reached.

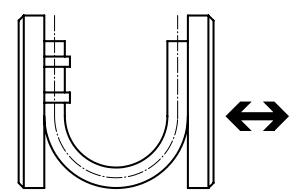


Cross-section flattened by bending the tube.

d = non-deformed tubing O.D.

d_1 = deformed tubing O.D.

Minimum bending radius R_{min}



The tube fixed to the base plate is bent until the deformation results in a kink. The measured value is the minimum bending radius R_{min} . This R_{min} results in significant reductions in the flow rate.