

## Plastic tubing PEN

**FESTO**



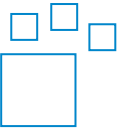
## Characteristics

### At a glance

Very flexible with high abrasion resistance as well as an attractive price for a wide range of applications.

- Polyethylene
- High resistance to chemicals and very high resistance to hydrolysis
- Resistant to most cleaning agents and lubricants
- Suitable for energy chains
- Operating medium: compressed air, vacuum, water

### Ordering data - modular system



Configurable product

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

### Diagrams

[Further information → pen](#)



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
- In some cases, available in longer lengths on a reel.

## Type code

001	Series
<b>PEN</b>	Plastic tubing

002	Pipe/tubing O.D. x wall thickness
<b>4x0,75</b>	4x0.75 mm
<b>6x1</b>	6x1 mm
<b>8x1,25</b>	8x1.25 mm
<b>10x1,5</b>	10x1.5 mm
<b>12x1,75</b>	12x1.75 mm
<b>14x2</b>	14x2 mm
<b>16x2,5</b>	16x2.5 mm

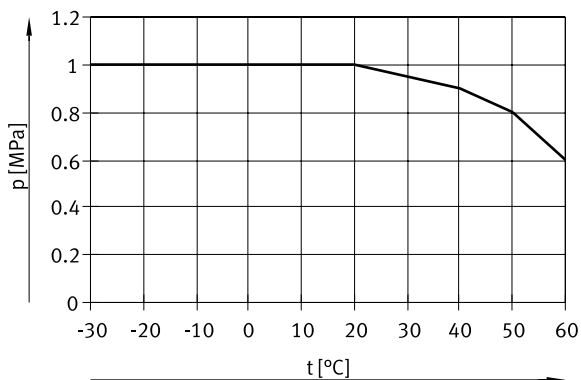
003	Colour
<b>NT</b>	Natural
<b>SW</b>	Black
<b>BL</b>	Blue
<b>SI</b>	Silver
<b>RT</b>	Red
<b>GN</b>	Green
<b>GE</b>	Yellow

004	Packaging unit [m]
	Standard
<b>100</b>	100 m
<b>200</b>	200 m
<b>300</b>	300 m
<b>400</b>	400 m
<b>500</b>	500 m

## Datasheet

Operating and environmental conditions							
Outside diameter	4 mm	6 mm	8 mm	10 mm	12 mm	14 mm	16 mm
Inside diameter	2.7 mm	4 mm	5.7 mm	7 mm	8.4 mm	9.5 mm	10.8 mm
Pneumatic connection	For push-in connector O.D. 4 mm 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 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	20 mm	26 mm	35 mm	40 mm	58 mm	80 mm	122 mm
Min. bending radius	10 mm	13.5 mm	22.5 mm	23.5 mm	33 mm	45 mm	57.5 mm
Temperature-dependent operating pressure	-0.095 ... 1 MPa						
Temperature-dependent operating pressure	-0.95 ... 10 bar						
Temperature-dependent operating pressure	-13.775 ... 145 psi						
Operating medium	Compressed air to ISO 8573-1:2010 [7:-:] Water (liquid, ice-free)	Compressed air to ISO 8573-1:2010 [7:-:] Water as per manufacturer's declaration at <a href="http://www.festo.com">www.festo.com</a> Water (liquid, ice-free)	Compressed air to ISO 8573-1:2010 [7:-:] Water (liquid, ice-free)	Compressed air to ISO 8573-1:2010 [7:-:] Water as per manufacturer's declaration at <a href="http://www.festo.com">www.festo.com</a> Water (liquid, ice-free)	Compressed air to ISO 8573-1:2010 [7:-:] Water (liquid, ice-free)	Compressed air to ISO 8573-1:2010 [7:-:] Water (liquid, ice-free)	Compressed air to ISO 8573-1:2010 [7:-:] Water (liquid, ice-free) Water as per manufacturer's declaration at <a href="http://www.festo.com">www.festo.com</a>
Ambient temperature	-30 ... 60°C						
Approval	German Technical Control Board (TÜV)						
Certificate issuing authority	B 013277 0506 00						
Tubing characteristics	Suitable for energy chains						Suitable for energy chains in applications with higher cycle rates, Suitable for energy chains

### Operating pressure p as a function of temperature t

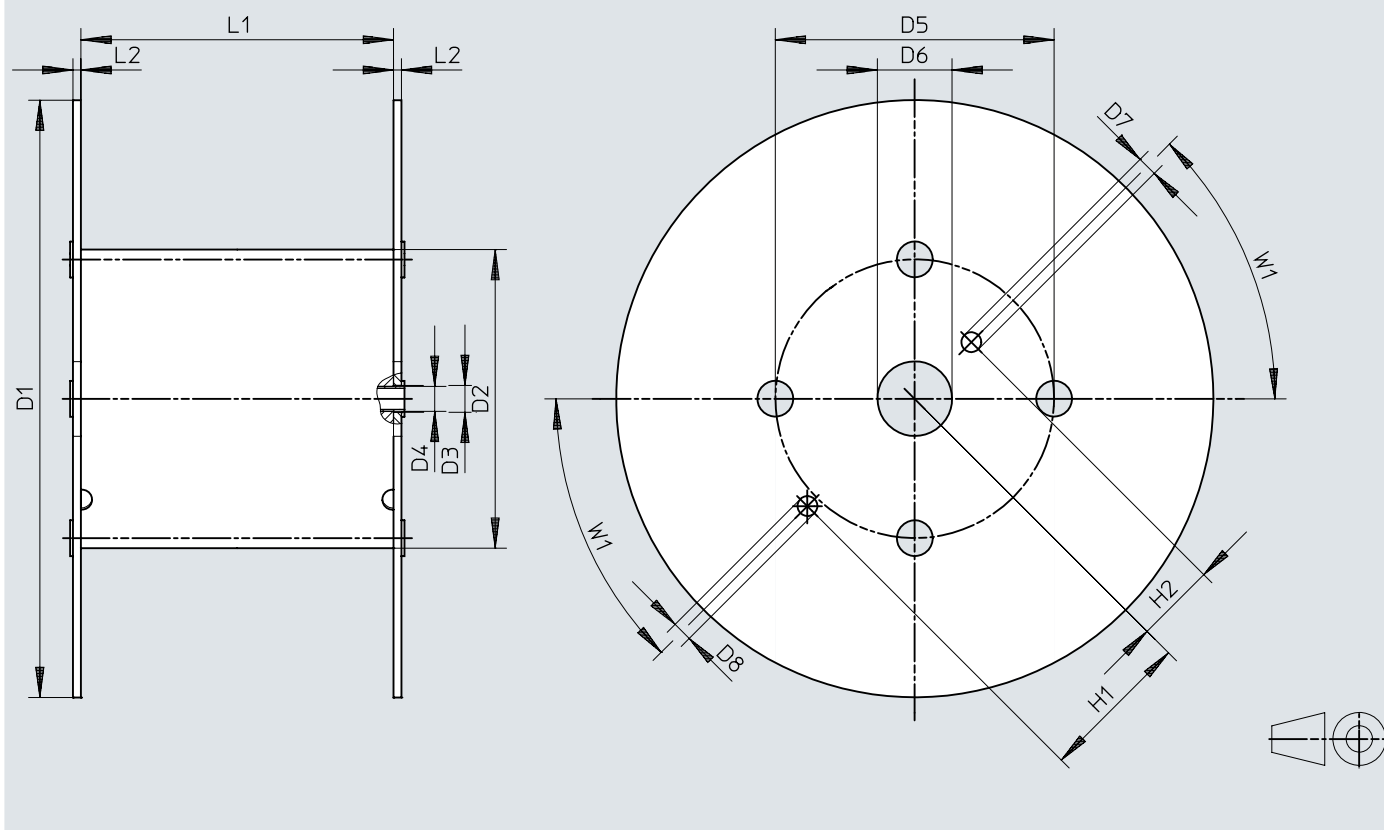


### Materials

Shore hardness	D 52 +/-3
Material tubing	PE
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B2-L, VDMA24364-B1/B2-L
Cleanroom class	Element installed statically, no meaningful evaluation possible according to ISO 14644-1


## Dimensions

## Dimensions – Reel


Download CAD data → [www.festo.com](http://www.festo.com)

	D1 ∅	D2 ∅	D3 ∅	D4 ∅	D5 ∅	D6 ∅	D7 ∅	D8 ∅	H1	H2	L1	L2	W1
PEN-4x0,75-...-500	545	246	21	20	216	75	20	20	152,5	80,5	128	8	45°
PEN-6x1-...-500	545	246	21	20	216	75	20	20	152,5	80,5	128	8	45°
PEN-8x1,25-...-400	545	310	21	20	280	75	20	20	152,5	80,5	254	8	45°
PEN-10x1,5-...-300	600	310	21	20	280	75	20	20	152,5	80,5	254	8	45°
PEN-12x1,75-...-200	600	310	21	20	280	75	20	20	152,5	80,5	254	8	45°
PEN-16x2,5-...-100	545	310	21	20	280	75	20	20	152,5	80,5	254	8	45°

Ordering data

Ordering data						
	Outside diameter	Packaging unit [m] <sup>1)</sup>	Product weight according to length	Colour	Part no.	Type
	4 mm	Standard	0.006 kg/m	Blue	551456	PEN-4X0,75-BL
				Yellow	551480	PEN-4X0,75-GE
				Green	551468	PEN-4X0,75-GN
				Natural	543246	PEN-4X0,75-NT
				Red	551474	PEN-4X0,75-RT
				Black	543240	PEN-4X0,75-SW
				Silver	551462	PEN-4X0,75-SI
				Blue	551444	PEN-4X0,75-BL-500
				Black	551438	PEN-4X0,75-SW-500
	Silver	551450	PEN-4X0,75-SI-500			
	6 mm	Standard	0.015 kg/m	Blue	551457	PEN-6X1-BL
				Yellow	551481	PEN-6X1-GE
				Green	551469	PEN-6X1-GN
				Natural	543247	PEN-6X1-NT
				Red	551475	PEN-6X1-RT
				Black	543241	PEN-6X1-SW
				Silver	551463	PEN-6X1-SI
				Blue	551445	PEN-6X1-BL-500
				Black	551439	PEN-6X1-SW-500
	Silver	551451	PEN-6X1-SI-500			
	8 mm	Standard	0.023 kg/m	Blue	551458	PEN-8X1,25-BL
				Yellow	551482	PEN-8X1,25-GE
				Green	551470	PEN-8X1,25-GN
				Natural	543248	PEN-8X1,25-NT
				Red	551476	PEN-8X1,25-RT
				Black	543242	PEN-8X1,25-SW
				Silver	551464	PEN-8X1,25-SI
				Blue	551446	PEN-8X1,25-BL-400
				Black	551440	PEN-8X1,25-SW-400
	Silver	551452	PEN-8X1,25-SI-400			
	10 mm	Standard	0.038 kg/m	Blue	551459	PEN-10X1,5-BL
				Yellow	551483	PEN-10X1,5-GE
				Green	551471	PEN-10X1,5-GN
Natural				543249	PEN-10X1,5-NT	
Red				551477	PEN-10X1,5-RT	
Black				543243	PEN-10X1,5-SW	
Silver				551465	PEN-10X1,5-SI	
Blue				551447	PEN-10X1,5-BL-300	
Black				551441	PEN-10X1,5-SW-300	
Silver	551453	PEN-10X1,5-SI-300				
12 mm	Standard	0.054 kg/m	Blue	551460	PEN-12X1,75-BL	
			Yellow	551484	PEN-12X1,75-GE	
			Green	551472	PEN-12X1,75-GN	
			Natural	543250	PEN-12X1,75-NT	
			Red	551478	PEN-12X1,75-RT	
			Black	543244	PEN-12X1,75-SW	
			Silver	551466	PEN-12X1,75-SI	
			Blue	551448	PEN-12X1,75-BL-200	
			Black	551442	PEN-12X1,75-SW-200	
Silver	551454	PEN-12X1,75-SI-200				
14 mm	Standard	0.077 kg/m	Natural	570517	PEN-14X2-NT	
			Black	570516	PEN-14X2-SW	

## Ordering data

Ordering data						
	Outside diameter	Packaging unit [m] <sup>1)</sup>	Product weight according to length	Colour	Part no.	Type
	16 mm	Standard	0.103 kg/m	Blue	551461	PEN-16X2,5-BL
				Yellow	551485	PEN-16X2,5-GE
				Green	551473	PEN-16X2,5-GN
				Natural	543251	PEN-16X2,5-NT
				Red	551479	PEN-16X2,5-RT
				Black	543245	PEN-16X2,5-SW
		Silver		551467	PEN-16X2,5-SI	
		Blue		551449	PEN-16X2,5-BL-100	
		Black		551443	PEN-16X2,5-SW-100	
		Silver		551455	PEN-16X2,5-SI-100	

1) Standard: 50 m

Ordering data – Modular product system			
	Short type code	Part no.	Type
	PEN	553769	PEN